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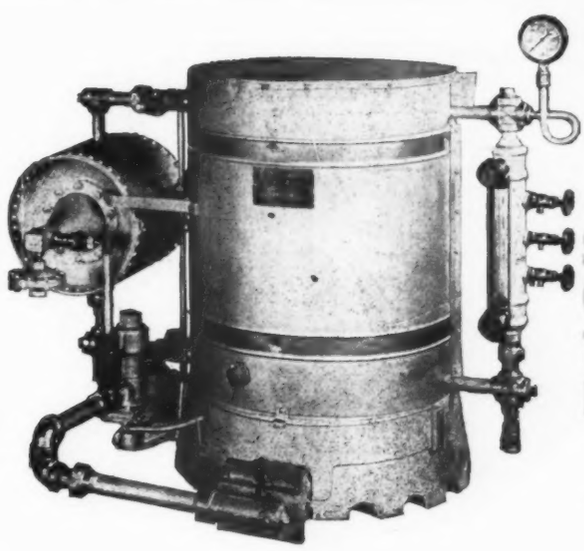

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INDEX TO CONTENTS, PAGE 319

ADVERTISERS' INDEX, PAGE 22

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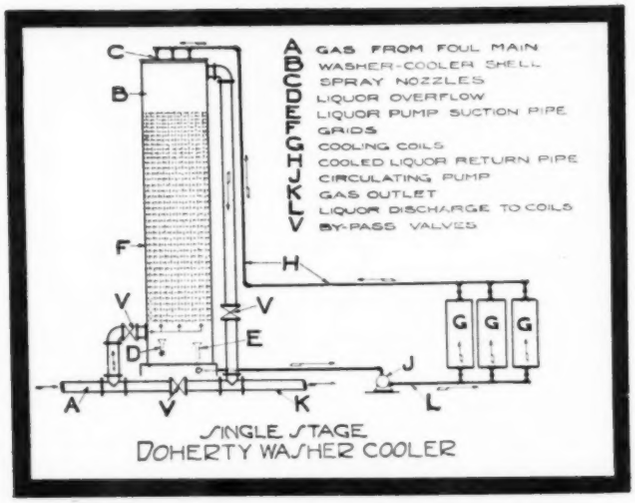

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American Gas Journal
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A Consumer's Viewpoint

How a Man Outside Looks at Us

By A GAS USER

For the past eighteen years I have been a consumer of gas. During that time I have moved around this country a lot (I am in a line of business that causes me to make my home in small towns as well as big cities) and I think that I am fairly typical of the average consumer on the lines of most companies. Maybe the statement that I have used gas for domestic purposes for eighteen years will not be impressive so far as a gas company official is concerned, but as I was remarking to my wife the other night I have bought nearly $2,500 worth of gas and to-day I have nothing to show for it. Understand me, I am not kicking. I think that gas has made it possible for me to enjoy a lot of comforts that I otherwise would have had to go without, so that if you are reading this with the idea that you are going to hear from a disgruntled user of your product this is the best place to stop.

It isn't often that we get an opportunity to "see ourselves as others see us." But in the accompanying article a consumer tells us quite candidly how he views us and our activities. There are going to be more articles published along these lines in the near future. Look for them.

—Editor.

I don't intend to tell you how to run your business. That is none of my affair and you know more about it than I possibly could. But what I am going to tell you is something of the impressions that I have received during the years I have trotted down to your office and paid my monthly bills. I don't know whether these impressions are going to be of interest to you or of value. The editor says they will, and so I am going to write exactly as I feel and as I believe the average customer of your company feels.

When I was a boy I was on a farm. We didn't know anything about gas. I doubt if I ever heard it mentioned during the early years of my life, but when I felt the urge to go to the city and make my living the first thing that my dear old mother urged on me was not to blow out the gas. Well, I didn't, as is evidenced by the fact that I have survived to this late day.

Gas didn't mean very much in my life during the first few years that I came in contact with it. Except for the fact that my landlady had some method of keeping the gas from burning very fast, I didn't give it much attention.

It was when I was first married that gas began to mean something to me. The young lady who had consented to be my wife was city-bred. She knew that we had to deposit some money with the company in order to get the gas turned on. So I went around to the company office and deposited my money. Right there the first thing happened that aroused any interest in the gas company so far as I was concerned. A young man at the desk took my name and address and had me sign an application. Then he took my money and told me good day. That struck me as peculiar. The company had my money and my signature. They knew where I worked but when I came away from that office there was nothing in my possession that showed I had ever been near the office. I had no receipt for the five dollars and I want to tell you that taking five dollars away from me meant creating a vacuum in my money pocket. It wasn't until I was half a block away, however, that this thought impressed me. I debated with myself for some time as to whether I would return and ask for a receipt or not. Finally I decided that a corporation as rich as the gas company was good for the money and I went on my way.

Found the Same Conditions

The reason I talk so much about this is because a few months ago I removed my family to our present location. The town was strange. I didn't mind putting up my money, but the same thing occurred. I went through the same rigmarole and started away without any receipt. But I had often thought that I would some day turn, and as I felt perfectly secure,

having a ten-dollar bill in my pocket that no man had a claim to (the same thing as being a millionaire), I went back to the clerk and asked for a receipt.

I don't think I will ever do it again. It was a terrible shock to the young man. At first he couldn't understand what I was talking about. Finally I managed to make him understand that I wanted a receipt for my ten dollars that they could have back when they wanted it or when they gave me another, which I have learned from my experience is called a deposit receipt.

There was a great deal of conferring on my request. I am not sure whether the president and the board of directors was consulted but finally a stenographer was called and a receipt dictated and signed and turned over to me. Apparently this was the first time in the history of that company that anybody had ever asked for a receipt when giving up coin of the realm.

Perhaps there is some good reason why gas companies (and for that matter electric light companies too) do not issue a temporary receipt, but for the life of me I can't figure it out. I know whenever anybody pays me money they don't wait for me to mail a receipt but they insist on getting at the exact moment they make payment to me.

The average gas man probably won't believe me when I tell him that for the first three years that I used gas I never made any complaint. From what I gather from my talk with some gas men the company is blamed for everything from the milkman's failure to show up to the fact that the day has turned out rainy. But I am willing to take my oath that I never had a kick, or if I did I lacked nerve enough to go through with it.

Once I remember I had to buy shoes. It was a question of whether I would pay the gas company bill that month or buy the shoes, and the gas company lost when I tossed a coin. About ten days after that bill was due I got a letter from the company telling me what would happen if I didn't come in and pay up right off the reel. It scared me. I may as well admit. My wife got the letter and when I came home that night she was scared out of her wits. I laughed about it (that was for her benefit), defied the company and told her not to worry. But I didn't sleep much that night because of the action of the gas company in showing me up for a deadbeat in front of the wife, and the next morning I got an hour off from my work and ducked around to the company. I paid that bill right then and didn't eat any lunches for the rest of the week. But my gas wasn't turned off and I still am getting away with the bluff that I am one noble defier. At least I am to my wife, who believes to this day that I defied the company to turn off the gas.

Becoming Interested in Gas

The first time my interest was aroused to any great extent in the gas business was when there was a local election in our city. One of the issues was the question of a reduction in the price of gas. The politicians on one side declared that if they were elected to office they would at once reduce the price of gas. How they were going to do this wasn't quite clear to me, but my wife who was and still is, for that matter, a careful reader of the newspapers, figured out from this talk that our gas bills would be reduced by half. She was going to start a savings account with the money she saved.

During that campaign I don't think there was any name in or out of the dictionary that a newspaper could print that the gas company wasn't called. But it didn't seem to get a rise out of the gas people at all. They just went ahead and told the public to either pay its bills when and as the company said, or be cut off.

There seemed to be an air of defiance about the company and its employees that was reflected in the attitude of the collectors who came to my door. I remember my wife reporting to me one night that she had been insulted by the collector. Now I realize that it is an insult to some people to ask them to pay their bills, and so I inquired carefully of my wife just what had taken place. It seemed the young man, whose badge number she had taken, insisted that she pay him despite the fact that I had always called at the office to pay my bills. This was a peculiarity on my part because I didn't want to have to pay bills twice. And sometimes people have been known to impersonate the gas bill collector and get away with the money. Then again money wasn't so plentiful in those days with me. To resume: When my wife refused to pay he became abusive and called her a "deadbeat." He said a lot of other things that she couldn't remember but she was absolutely positive of his having applied that name.

The next morning I dropped around to the gas company office and demanded to see the manager. Of course, that was refused. He was too busy, although I got a look in at him as I went past his office and he was laughing away to beat the band over something. At the time I thought it was because a lowly consumer had demanded to see him.

Finally I was ushered into an office and the head of the collectors listened to my story. When I had finished he didn't exactly call me a liar (I'm a pretty husky individual) but he did intimate that his man couldn't possibly have done any such thing as I outlined.

He promised to investigate, and I want to give him credit. He at least wrote me a letter. The letter was very clear. It said that he had looked into the matter and had found out that my wife was in the wrong and that his man had never said anything like the alleged remark. That year I voted for the fellow who promised to reduce gas rates and also I went to work for him. I hustled every day up to election trying to get votes and I always told my story. As I look back on it I am inclined to believe that not only did I tell my story but I embellished it a trifle. I have always felt that I got my satisfaction out of that company because of the trouble that that officeholder made for the officials. Also, as can well be imagined, I didn't shed any great number of tears when I learned that another company had bought out the stock of our gas business and that all of those in executive jobs were going to be fired.

A Sharp Contrast

Perhaps it wouldn't be out of place to contrast that treatment with that accorded me a short time ago by our gas company.

I had occasion to complain. The bill I received was more than double any that had ever been presented

(*Continued on page* 321.)

Problems of the Gas Industry

Review in Address by Bruno Rahn, President, Wisconsin Gas Association

We have witnessed during the past year a complete reversal of business such as this country never experienced before. Last year, record high commodity prices, manufacturers and railroads unable to supply the country's urgent demands and industry booming as never before, and now industry prostrate, factories closed, farmers withholding their products from the market, millions idle, record failures and the greatest shrinkage in inventories ever known. From the peak of prosperity the nation's business descended in a short space of time to the depth of gloom. Nationally there has been an era of extravagance, of reckless buying, of speculation and of paper profits. The desire to borrow more and more money was rampant everywhere. Thanks to the action of the Federal Reserve Bank putting a check on indiscriminate borrowing, unhealthy expansion was forced to stop.

The address of President Rahn, of the Wisconsin Gas Association at its recent meeting, summed up the situation of the gas companies, not only as it exists in his state, but as it is found the nation over. Mr. Rahn's words contain much wisdom.—Editor.

Deflation since has slowly but surely developed along natural and not forced or drastic lines. I consider it a tribute to the fundamentally sound economic principles upon which our industry is founded, that the utilities have weathered the upheavals and reversals which the past year has brought in such a way as to maintain their solvency. Much credit is due the heads of our companies for the indomitable courage and the stubborn perseverance with which they have carried on the battle for higher rates to stave off financial ruin, for the determination and insistence that the public must be served and served well in spite of all odds. I feel that I am voicing the innermost thought and sentiment of public utility men when I say that all of us, who have helped to carry on this struggle in one way or another, take pride and satisfaction in the consciousness that our industry is alive and kicking and that we are eager and ready to deliberate and discuss those problems whose solution will keep it so.

As an immediate result of the existing industrial stagnation we are facing serious decreases in revenues due to the marked falling off of gas sales, especially is this true of those of our companies who enjoyed considerable industrial gas business. Coupled with this comes a decline in the prices of by-products, with practically no immediate market for coke. On the other hand, recorded decreases in the price of coal and oil, the two commodities of most vital importance in the manufacture of our product, present a ray of hope in the business outlook. With respect to materials in general, we are confronted to-day with a buyer's market instead of a seller's market which was the case a year ago. These facts, while gratifying, should not be viewed with too much optimism, however, especially since experts tell us that the present lower price levels are of a very unstable nature due primarily not to overproduction, but rather to underconsumption. Freight rates are continued high with no relief in sight, unless there is marked deflation in the cost of railroad labor.

Wage Revision Necessary

It is an accepted fact that before commodity prices in general can be brought down to permanent lower price levels, there must be a revision of wages downward. We are confronted with the necessity of wage reductions in the gas industry, a problem well worth the most careful consideration. We have recognized the principle of collective bargaining as between employer and employee. By establishing points of personal contact between our men and ourselves, with the proper statistical data regarding reductions in the cost of living available, I see no reason why proper wage reductions cannot be agreed upon, mutually satisfactory to both sides. Attempts along these lines even though unsuccessful, certainly can do no harm, besides having a wholesome effect upon public opinion.

I am quoting from an address delivered by Hon. Carl D. Jackson, president of the Wisconsin Utility Commission, delivered before the National Electric Light Association, May, 1920, as follows: "It is fundamentally true that the people as a whole have a keen sense of justice and right and in the long run, with full understanding, generally, will arrive at a correct decision. The difficulty is in getting the full facts before the people, and this is so especially in matters disputed before commissions. It often may occur that the people do not realize the benefits which they themselves have received from regulation. The people are entitled to and will insist upon reasonable

rates, but they are willing to pay for good service. Publicity of the right sort can be of great assistance in this matter. When fathered by an organization such as your own it should be scrupulously fair in order to encourage public confidence. If the public knows it is getting a square deal, it will give a square deal."

It was my pleasure to urge upon you last year the importance of disseminating among the public information and knowledge regarding the nature and working of our great utility enterprises. Why rates must be just and reasonable; what constitutes a fair valuation; the relation between fair return, utility securities, and credits; the importance of adequate service; the necessity of proper extensions in plant and distribution; frank and intelligent discussion of topics like these in plain and straightforward language must be spread broadcast among the communities we serve, in print and by word of mouth, by every possible means at our command. We have constantly witnessed all about us the malignant and pernicious efforts of unscrupulous newspapers and small politicians playing upon public distrust and prejudice due to misconception and ignorance of the facts as they are. We can and will combat these sinister influences which menace the progress and healthy development of our utilities, and I am proud to announce that our association in conjunction with the Wisconsin Electrical Association and the Wisconsin State Telephone Association has created the Wisconsin Public Utilities Bureau under the direction of Mr. Herwig, its purpose being the issuance of bi-weekly news to enlighten the public regarding utility business, its functions and aims, to bring home to our communities a realization that our business is an honest business conducted by honest men with an earnest desire to serve their employer by rendering faithful service to the community.

I take this opportunity to state that we appreciate the work of our Wisconsin State Railroad Commission. Subjected to unfair criticism from many sides, it is my opinion, that the commissioners have administered the great power vested in their office by virtue of the public utilities act, in a judicial manner without fear of popular and political disfavor, fawning on none. The commission has granted relief to our member companies through rate increases, in some cases more than one, and although in our opinion some of these are inadequate and came at times somewhat belated, the work of the commision during the past few years, considered as a whole, will serve as a valuable precedent for future activities of regulatory bodies.

Reporting the recent interrogation of the commission before the State Legislature, newspaper men were unanimous in their opinion that the appearance of the commissioners before the Legislature strengthened the commission; that the commission justified its attitude in permitting utilities to increase their rates due to higher operating costs, and that there will be no effort made to repeal the public utilities act.

R. B. Brown Thanked

I herewith tender the thanks of our association to R. B. Brown for his valuable expert activity, resulting in the adjustment of the heat unit standard. Many of the state commissions throughout the country have adopted the lowered heat unit standard so that at this time the 600 B.t.u. standard is being adhered to in very few instances. Expert technical opinion is unanimous in pronouncing the revision of the heat unit standard downward as a step in the right direction. The debate centers chiefly about the proper lowest limit. I recommend your association to continue committee activity for the purpose of further gathering statistical data and evidence regarding the workings of the adjusted standard with a view of submitting same to the commission to strengthen them in their conviction that the revision of the heat unit standard was a well-advised step, resulting in improved operation and better service to the public.

The gravest problem, and at the same time the one of the greatest importance to the continued welfare of our business, is the question of raising the funds with which to carry on essential construction and extension in operating and distribution departments. The money market is flooded with security issues of every description offered for immediate sale. Competition for the available capital is keen and as a consequence the price of money is high. To keep operating equipment at the point of highest efficiency requires constant investment. Required main extensions must be carried on so that the healthy development of the community may not be hampered. New capital for extensions cannot be taken from earnings. The investor fixes the price which the utility must pay for money. Many companies have perfected plans for selling their securities to their constituents. This plan no doubt possesses merits although the selling expense runs high. Another attractive idea is the incorporation of a national financing company.

Capital must be obtained in the face of the facts that earnings are meager, prevailing interest rates at the banks high and competition for money keen. Such conditions as these will not permit us to look lightly at the future before us. Constant applications, grim energy, utmost economy and stubborn perseverance will solve these problems. This is a time for conservative optimism and resolute courage. It is only through hard work and honest effort that we move on to better things.

Huge Gas Well Unearthed

By J. B. Dillon

On March 18, W. J. Lloyd, president of the Preston Oil Company, of Denver, telegraphed his office, the message coming from the field section, that a great gas well has been struck on their Morris lease in Okmulgee County, Okla. The gas well was struck at 2,550 ft. With a drill three feet in the sand the flow was estimated at 20,000,000 ft. At seven and one-half feet in the sand the flow was gauged at 27,000,000 ft., making it the largest gas well in that section of the State.

The Preston Company say that Preston well No. 1 on the Morris lease which was drilled in last summer and is still good for 15,000,000 ft. of gas, a part of it is now being sold in local territory.

The No. 2 well is located about 1,000 ft. north of No. 1. The gas is wet, showing a nearby oil pool, and well No. 2 was drilled in the belief that oil would result The sand was found at thirty feet less depth than in No. 1, showing the rise of the structure to the north.

Indianapolis Company Fight

Citizens Gas Company Continues to Wage Fair-Rate Battle

A new system of accounting, adopted since February 1, by the Citizens Gas Company of Indianapolis, resulted in showing the company's income was on the right side of the ledger, instead of in the "red ink," as had been the case in earlier months and this fact caused much of an uproar in the press of the gas company's community just at the close of the hearing of the company's petition for increases in rates from 60 cents a thousand cubic feet to 90 cents. The close of the hearing came late in March, following a supplemental audit of the company's books, ordered by Commissioner Glenn Van Auken, when the new method of accounting was revealed. The supplemental audit merely covered the month of February.

Many interesting and important points are arising in the fight of the Citizens Gas Company of Indianapolis, for an increased rate. Gas men in every part of the country are closely following the developments as they arise from time to time. That is the reason the JOURNAL *is devoting so much space to it.*
—Editor.

The company's original audit in the case showed that a net deficit of $133,000 had accrued during January, but in this figure the price of coke on hand in the company's various plants was estimated at $7.70. During at least a part of the February accounting prices of coke on hand were estimated as high as $14.39, the commission's figures brought out, and the net income February was given as $111,000, when the higher estimate on coke on hand was used.

J. D. Forrest, general manager of the company, testified that in 1920 the company sold 487,000 tons of coke at an average of $12.08 a ton. A total of 25,000 tons sold in December at an average of $13.82; a total of 12,000 tons in January at an average of $11.57; a total of 9,800 tons in February at an average of $10.40.

Commissioner Van Auken produced figures from the commission's audit of company books, which gave an average price of $10.61 for 10,045 tons of coke sold in February; a price of $3.47 for 4,864 tons of coke used by the company and a price of $14.39 for 28,327 tons of coke in storage.

Mr. Forrest explained that the coke varied in quality and that the prices were figured on a different basis.

The company receives about 20 per cent of its revenue from gas and the remaining 80 per cent from coke and by-products, Mr. Forrest testified. The proposed increase from 60-cent gas to 90-cent gas, it was brought out at the hearing, will produce from the 20 per cent source approximately $900,000 or $1,000,000 additional revenue for the company. The other income sources are subject to market fluctuations and the market, according to the company, will be decidedly off for many months to come.

Meanwhile, the company contended, more revenue must be had and it can come only from gas rate increases. According to the company testimony, the additional revenue is needed to meet actual cash shortages in the company's treasury and to make a financial showing sufficient to warrant additional capital being put into the plant and system, which now is inadequate to the needs of the growing city.

The low heat content in gas sold to the public was also discussed at the final hearing. One of those interested in the hearing demanded of Mr. Forrest if the heating power of the gas would not be greater if the company refrained from removing some of the vital parts of the coal used in the manufacture of gas for the purpose of making by-products. Mr. Forrest replied that the low B.t.u. content which is responsible for the heating element in gas is partly due to the inability of the company to purchase sufficient gas oil and a proper gas coal, thus making it necessary to use poorer substitutes.

Gustave G. Schmidt, a member of the Indianapolis city council, who has often attacked the gas company, appeared at the commission's hearing and declared that the citizens were not interested in the coke situation, which had occupied much of the time of the hearing before the State body, but were insisting on a higher B.t.u. content.

Will Pay for Quality

"The people of Indianapolis are willing to pay a fair price for their gas, but they insist that quality must go with it," said Mr. Schmidt. "I think that the time is past when any public corporation can use the expression 'The public be damned.' It would take Mrs. Murphy twice as long to boil a pot of beans with inferior as it would with superior gas No company can make gas for 60 cents a thousand, but in raising the rate the commission should not lose

sight of the quality of gas. The company in its franchise guaranteed to furnish 600 B.t.u. as a quality standard, but during the last year, by its own report, that standard has averaged but 555 B.t.u., the lowest falling to 515 and the highest standard reaching 585. Pressure, too, is important."

Mr. Schmidt admitted that gas had been of better quality during the last six months and since the strike conditions, but insisted that the commission impose a definite quality standard approaching as near to 600 as possible or above 570 B.t.u.

Under a rigid cross examination by Samuel Ashby, corporation counsel for the city of Indianapolis, Mr. Forrest explained the various costs of production of coke oven gas and water gas and gave his opinions on present business conditions.

"Conditions are not unusual, are they?" asked Mr. Ashby. "There have been ups and downs and there may still be ups."

"The downs are peculiar at this time," replied Mr Forrest. "Two things can save the situation: a general revival in business and an absorption of surplus coke. The upward movement, the stimulus we hope for in business will be a great encouragement to us but the situation is much worse now than it was two years ago."

"Can your business come back?" asked Mr. Ashby.

"Not by the first of the year," said Mr. Forrest. "The next market for coke will be a buyers' market for coke and it is up to us to prevent a buyers' drive. When they find that they will soon need coke they will press us to contract to sell them coke for a year at the present low price and we may have to do it. With what we get from our mines we can operate on high volatile coal until November and on low volatile coal for three months."

When quizzed as to whether he could dispense with coke and make water gas from gas oil, Mr. Forrest declared that it would be physically impossible to run the plants through the summer.

"We have 80,000 tons of coke on hand now and we are chiefly a coke producing plant," he explained. Mr. Forrest when asked why it was that the people must pay from $13.75 to $14.75 a ton for coke in the bins that the gas company could get but $9, explained that in order to find the best market the company had a contract with a selling agency to dispose of it for a 5 per cent commission. At some times in the last year, he said, the company could sell coke in Indianapolis for low prices, but that year in and year out it could not do so at a profit and that when the coke business does not produce profits the price of gas must be forced up. The company claims a $245,020 loss because of the decline in prices since it bought material on hand. A large part of this loss is attributed to the slump in coal prices, and Mr. Forrest testified that coal prices were now at a low ebb. The company's books showed a loss on coal of $2 a ton or approximately $225,000.

It was brought out that the company owns all of the stock of the Millburn By-product Coal Company, which provides the gas company with about one-seventh of its coal. It was shown that the gas company had effected savings in buying coal from this company ranging from $2.36 a ton in August to 94 cents in January.

Manufacturing Cost of 60 Cents

During the probe to determine costs Mr. Forrest stated that the bare cost of gas in the holder as it was manufactured was 60 cents a thousand feet.

"What will be your cost of production for the second quarter of this year?" asked Commissioner E. I. Lewis.

"About the same as this quarter," said Mr. Forrest.

"How about the third quarter?" quizzed Mr. Lewis.

"Then the cost will go up," was the reply. "It will go up about 3 cents in addition to all other increases, if we enrich the gas with more oil to obtain a greater number of B.t.u.'s."

Mr. Ashby brought out that the company since 1969 has been selling gas in Indianapolis for 60 cents—and for about four and a half years at 55 cents—and yet to-day has no deficit. Mr. Forrest, however, said that while that is true, it does not mean that the company does not have a serious deficiency, and that the company always can overcome it. He said the company has an actual cash shortage; is away behind in keeping up with the growth of the city, and is in no condition to expand adequately to the needs of the community.

Mr. Ashby kept trying to make the point that the present "tight" condition of the gas company is due to the temporary business depression, and that the gas company will survive, as it has survived two previous depressions. Mr. Forrest kept trying to make the point that the company has arrived at the present depression in a depleted condition, and that this is a worse depression than any previous one.

"There can be no upward movement in gas company conditions," said Mr. Forrest, "unless one of two things happen. There must be either a revival of general metal trades or there must be an absorption of surplus coke."

He testified that it will be near the end of the year before the company can begin to feel the effects of a business revival which he said might begin in June.

Mr. Forrest said the company now is shutting off some of its ovens because it cannot market its coke readily enough. This, he said, means less oven gas and this in turn will make necessary the production of water gas to supplement the oven gas for the city's consumption. Oven gas is a coke by-product and is the reason for the low-priced gas here. Water gas is an expensive gas manufactured only to augment the regular supply. Its production, the testimony showed, increases greatly the company's operating expenses.

"I have received numerous complaints," said Mr. Ashby, "from local business men and others about the high prices of coke in Indianapolis. I have right here in my hand a letter from a prominent citizen in which he says he just paid $14 for coke. How do you explain that?"

The question was directed to Mr. Forrest, who had just testified how the company is principally a coke producing plant, and how it has in stock thousands of tons it cannot now unload on the market.

"We have no control over the retail price of coke," said Mr. Forrest.

He testified that it is the practice of the company to sell coke to Indianapolis retail dealers on better terms than elsewhere. He said they are getting it for $9 a ton on the company's grounds. It was brought

out that the current market price in consumers' bins runs from $13.75 to $14.75. John R. Welch, president of the company's board of directors, said he had only recently paid $14.75 a ton to have coke put in his cellar, in the coke situation. In the questioning that followed it was brought out that the gas company is one of the largest coke producers in the country; that approximately 40 per cent of its coke is sold for domestic consumption; that it distributes its coke over a large area and that considerable quantities of coke produced in the Pittsburgh, eastern Pennsylvania and West Virginia territories, are brought here by coke retailers for sale.

Coke Sales Profits

Mr. Ashby then raised the question as to why the gas company does not sell more of its product here, and why it cannot make coke prices lower in its home town.

Mr. Forrest explained that the company first seeks as high a coke market as it can find so as to reap the best profits and thus sell its by-product gas cheaper to citizens. He said the company produces great quantities of coke and has a contract with a selling agency to take it for disposition at a 5 per cent commission. At some seasons, he said, the company could directly dispose of large quantities of coke in Indianapolis at low prices, but that year in and year out the company could not do so and make as much money as now, and that if the coke business does not produce profits enough for the company the gas price must be forced up.

The gas company cannot, according to Mr. Forrest, establish a retail coke business with proper facilities without incurring considerable added expense, and then he pointed out that earnings would have to be produced on the extra investment. He said that coke handlers in Indianapolis carry also lime cement and other like products and make their profits on the whole business. He said the gas company could not engage in the retail coke business in Indianapolis and undersell competitors without incurring a loss that would have to be made up by gas patrons or patrons of other of the company's products.

Mr. Forrest testified that he thought coal prices now are at a low ebb. He said prices are sure to go up. He gave the reason for the present lower prices that there had been thrown on the domestic market coal that under ordinary conditions would be going to business now curtailed because of the business depression.

It was in the discussion of the writing off of values and the setting out of what was written off as losses that the coke situation was discussed as a side issue. Mr. Ashby examined the witness similarly as to the writing off of the value of gas oil, benzol drums and other supplies.

In course of the testimony on coal it was brought out that the company owns all the stock of the Millburn By-product Coal Company, which provides the company with about one-seventh of its coal. Mr. Forrest explained that the coal company operated without profit except to obtain money to develop its mines, and that the gas company saved on buying coal from its subsidiary company various amounts a ton, ranging from $2.36 in August to 94 cents in January.

E. I. Lewis, chairman of the commission, questioned Mr. Forrest to bring out that there has been a 95 per cent increase in freight rates on coal bought by the company, and that the freight rate alone on coal now is more than the cost of coal and freight rate both in 1915. A somewhat similar showing was made with reference to gas oil prices.

The gas company is attempting to show that its 60-cent gas rate is insufficient to enable it to earn money to enlarge its plant and system adequate to the needs of the growing city, and that its earnings are insufficient even to attract more capital to put into the enlargements.

Decision Has Bearing on Gas Case

The Indiana commission, just at the close of the hearing in the gas company case, gave out a decision in which it allowed the Indianapolis Water Company to increase rates materially to its customers and at one point in its opinion, it gave voice to certain sentiments, which definitely opposed the stand of the civil city of Indianapolis in the water rate matter and which may figure also in the gas case. The city had opposed the increasing of fire hydrant rates. The commission said thereon:

"The commission observes the argument made by the city of Indianapolis in the brief filed by corporation counsel as to its financial inability to meet at this time an increase in the fire hydrant rentals. A careful weighing of the matters of this cause makes it manifest that it would be unjust to shift from the community as a whole on to the private consumers, that part of the burden that should be charged to fire protection service. The necessity for increases in rates is largely attributable to an increase of approximately $90,000 in the last year in city taxes and to the increase from $290,808 in 1915 to $630,659 in 1920. The city may not levy on such an institution such increased tax burdens and at the same time plead immunity from the effects of these increased operating burdens."

Persons in close touch with the gas situation in Indianapolis feel that some similar viewpoint will be expressed by the commission in relation to the enormous tax increases that have to be borne by the utility properties generally under Indiana's new taxation system.

A decision from the commission in the gas case is not expected for some time.

Oppose Municipal Ownership

Opposition to the purchase of the gas light and electric light plants of the Oshkosh Gas Light Company is confined to no one group of men, to no one line of industrial or commercial activity, nor to any one locality in the city of Oshkosh. One man close to the city administration declined to be quoted but said he was openly opposed to it and that fact was known at the city hall.

He said he was sorry the matter had come up at this time and feared the agitation in opposition to the city markets might have its influence in arousing prejudice in a certain class of voters to support the project for the purchase of the lighting plants. Based upon his intimate knowledge of municipal affairs, he said he was opposed to it and he believed it would be unwise to consider it, particularly at this time. He said he did not know of any strong sentiment in favor of it anywhere.

Reducing the B.t.u. Standard*

It's Effective from the Consumer's Standpoint

By A. F. DAVEY, Sheboygan, Wis.

During the past few years the gas company manager's troubles have been many. In addition to the tremendously increased costs of operation was added the difficulty of securing a good grade of gas-producing coal and oil. During the spring of 1920 this situation, aggravated somewhat by transportation troubles, became very bad indeed. Some companies were forced to discontinue service entirely for a few days, while others gave limited service during certain periods of the day only.

In 1915 the Canadian Gas Association petitioned the Canadian Government for permission to substitute for a candle-power standard a 500 B.t.u. monthly average. In July, 1915, the Canadian Government adopted a standard of 520 minimum monthly average.

In November, 1919, the Canadian Gas Association again petitioned the Government for permission to further reduce the calorific standard, and on Nov. 24 the Government issued an order establishing for a period of four months a standard of 450 B.t.u. In February, at the end of the four-month period, this standard was continued indefinitely.

On Jan. 1, 1918, the State of Massachusetts set a heat-unit standard of 528 monthly average. On Oct. 1, 1918, the State of Connecticut adopted the same standard as Massachusetts. The experience of these States showed there had been no increase in customers' bills, nor had the service suffered in any way.

With the above conditions and facts in mind, the Wisconsin Gas Association, represented by R. B. Brown, petitioned the railroad commission for permission to lower its standard to a 520 monthly average B.t.u. On Sept. 8, 1920, the railroad commission gave the gas companies of the State permission to decrease the standard to a monthly average of 520 B.t.u., with a minimum of 500 and a maximum of 546.

This company decided to reduce in three steps; the first step was to 565. A gradual reduction was made and this standard was carried for approximately five weeks. During all this time we advertised extensively in the newspapers and also carried an ad on the gas bills. The ads as printed in the papers and on the gas bills are as shown:

To Our Customers—

Get the most for your money out of the gas you use. Make your gas bills thrift bills.

We help you do this when we aid you in choosing the most economical gas appliances and tell you how to avoid waste by using them intelligently.

Waste of gas means big bills, complaints, investigations, rechecking, letter writing, delayed payments and other expenses; and, worst of all, it means dissatisfied customers.

Satisfied customers are worth more to us than any revenue derived from gas which is wasted.

Are you having any trouble with your gas appliances?

If so, have you notified us? We have a service department whose duty is to keep all your appliances in proper working order. We would appreciate your notifying us if your appliances or gas service are not entirely satisfactory. This department is maintained for your benefit.

Sheboygan Gas Light Company.

(*On Bills*)

To Our Customers—

Are you having any trouble with your gas appliances?

If so, have you notified us? We have a service department whose duty is to keep all your appliances in proper working order. We would appreciate your notifying us if your appliances or gas service are not entirely satisfactory. This department is maintained for your benefit.

Sheboygan Gas Light Company.

The average monthly B.t.u. for the month of August was 594; September, 572; October, 556; November, 539; December, 530; January, 529; February, 533.

The number of complaints received during these months was as follows:

1. Low pressure due to main	..	..	..	..	..	..	..
2. Low pressure due to services	29	46	37	44	15	20	6
3. Low pressure due to house piping	8	3	2	10	5	8	5
4. Appl'nces adjusted	109	149	99	90	73	82	48
Lamps adjusted	38	70	59	113	75	45	26
5. Appl'nces defective	6	13	6	1	2	..	..
6. Leaks	50	52	57	36	21	17	10
7. Low pressure gen'l	..	..	..	..	..	..	..
8. Low pressure local	..	..	..	..	..	..	..
9. No trouble found	11	8	4	5	1	4	5
10. Odor of sulphur	..	..	..	..	..	..	..
11. Stuck meters	12	6	11	12	5	9	..
12. High bills	4	5	10	4	1	2	..
13. Drip trouble	4	1	..	..	..	..	..
14. Freeze-ups	..	..	..	1	2	..	..
Total	271	353	285	317	200	187	100

The number of complaints received per month per hundred meters in use was as follows: August, 5.2; September, 6.6; October, 5.2; November, 5.6; December, 3.6; January, 3.4; February, 1.8.

When our B.t.u. had reached a 550 average we started men out on a house-to-house inspection and adjustment of appliances. In most of the cases it was necessary to ream the orifice and adjust the air. These men made a complete inspection, including the size of the service, meter, and the number of appliances. Conditions such as small-sized service, small fuel run, small meter, hose connection to hot plates, and any other con-

(*Continued on page* 322.)

*Paper read at Wisconsin Gas Association meeting.

Being a Good Customer of the University

A Paper Read Before the Wisconsin Gas Association Meeting

By PROF. O. L. KOWALKE

It is unusual that you are asked to consider an educational problem. But the problem is one in which you are vitally interested; it concerns your employment of a product from the university. You are now a good customer and it is necessary that you continue to be so. To retain your patronage, satisfactory service must be rendered; you must know the capacity of the product; your confidence and good-will must be retained.

To aid in the presentation of this topic certain analogies will be suggested between the gas industry and the university. Your business is sometimes called a public utility. Utility is synonymous with service; so you give a public service. What would justify a university if it were not public service?

The gas industry and the university each have a technical staff. In the university the function of the staff is to train young men for engineering and industrial service. Your raw materials now come to you from variable sources, and it is not always known how best to treat them, though they may obey certain well-known laws of chemistry, physics, and mathematics. The university also draws on many sources for young men of variable capacity and previous training and the technical staff is not always able to meet requirements in the matter of standards because the laws governing the workings of the human mind are not perfectly understood. Some companies are managed more successfully than others; some instructors are more successful than others in the training of young men.

Your sales and complaint departments are complementary. The first sells the product to your consumer; the second gives the customer an opportunity to express dissatisfaction with the commodity sold or service rendered, but at the same time strives to retain his good-will. In a like manner the university after disposing its product among the industries, strives, through its representatives, to determine whether the service rendered by the young men is satisfactory. This is one of the opportunities which the university seeks for a discussion regarding inadequacies in its technical training. A frank expression of opinion is therefore invited.

For some time past, we have been in correspondence with numerous universities throughout the United States seeking just such information as Prof. Kowalke gives here. We believe there is no more important question facing the technical end of our industry than this one. We would like to hear from our readers regarding it.—Editor.

You get new business through advertisements, demonstrations, and personal solicitation. You believe that the better the prospective customer understands what he can do with your product, the more likely he is to buy your commodity. The university publishes a general catalogue and bulletins regarding special courses; it may also make personal explanations regarding specific advantages offered. This opportunity is therefore taken to speak specifically about the training offered for chemical engineers, which, it is believed, is particularly suited for the gas industry today. The training is not that of a chemist; it is more along the lines of engineering than of chemistry. Besides liberal instruction in theoretical chemistry the student is also required to take the basic courses in drawing, mathematics, physics, mechanics, and machine design that are required in the curricula for mechanical and electrical engineering.

The following tabulation of the curriculum in chemical engineering is self-explanatory:

First Year			
First Semester	Credits	*Second Semester*	Credits
General chemistry	3	General chemistry	3
Drawing	3	Drawing	3
English	3	English	3
Mathematics	5	Mathematics	5
Shop work	2	Shop work	2
Second Year			
Mathematics	4	Mathematics	4
Physics	5	Physics	5
Machine design	4	Mechanics	5
Quant. chem. analysis	5	Gas & fuel analysis	2
		Engin'ring materials	2
Third Year			
Organic chemistry	3	Organic chemistry	3
Steam and gas engineering	3	Steam and gas engineering	5
Mechanics	5	Descriptive geom	3
Metallography	3	Elec. engineering	2

Pyrometry	2	Chemical machinery	2
Electives	3	Strength of mater'ls	2
		Electives	3

Summer work in chemical engineering.....5 weeks

FOURTH YEAR

Elec. engineering	4	Machine design	3
Physical chemistry	3	Contracts	2
Electrochemistry	5	Indus. organ. chem.	2
Thermochem. calculations	2	Thermochem. calculations	2
Steam and gas engineering	1	Special problems	4
Electives	2	Electives	5

In the elective courses opportunity and encouragement are given for the student to broaden his vision and interests. He is encouraged to study economics, business methods, English, history, and the like. Among the electives, he may choose a course in gas manufacture and distribution. In this course the fundamental principles of chemistry, physics, and mechanics are emphasized as applied to the carbonization of coal and oil, heat conduction, refractory materials, and the distribution of gas. The technique of this industry can best be learned in the plant.

You have repeatedly employed the graduate in chemical engineering, hence you are a good customer. Customer is synonymous with patron. But a patron is defined as one who supports; one who helps a cause, a work. You have done more than support; you have given liberally from your funds to establish a fellowship in gas engineering in the department of chemical engineering. Thus you have a vital interest in this matter of training young men.

The question may well be asked, "Why did this association establish the fellowship?" Two reasons may be suggested: first, to obtain information of value to the association; second, to train men for subsequent employment in the industry. Up to this time the chairman of the chemical engineering department chose and nominated to the Board of Regents the most promising candidate for the fellowship. The chairman also took the initiative in the choice of problem, but consulted with the president of this association and other members. Informal discussions have been held as the work progressed, and the final reports have been presented at the annual meetings of this association.

A Few Suggestions

The following suggestions are offered for your consideration in order to obtain better results and greater interest on the part of students in the gas industry. Because the men hitherto appointed to the fellowship have had neither knowledge of the problem to be studied nor practical experience in the gas business, considerable time had to be spent by each fellow to become familiar with his problem. There should be some way in which the student could become more familiar with the practices in the gas industry before beginning work on his problem.

During the summer following the junior year, the student in chemical engineering is required to work at the university eight hours each day for a period of five weeks in a laboratory course in chemical manufacture. This is a most favorable opportunity to observe the ability and initiative shown by the student.

It is proposed to select from this group three or more men of proper personality and good records as students to take temporary summer employment in your plants; that is, from about the middle of July to the middle of September. During this time the men are under your supervision. Reports on such summer work will be required of the student, reports from your executives to the chairman of the chemical engineering department regarding the record made by the student would be highly desirable. By the end of the senior year it would be possible to make a choice for the fellowship from those who have shown aptitude for the work. During the summer following the fourth year the student should have the opportunity again of working in a gas plant so that he may become more familiar with the problem he is to study during the coming scholastic year.

It is hoped that this proposal will provoke some discussion and that suggestions will result from it. This is a matter in which you are vitally interested and your views are earnestly sought. The chemical engineering staff desires to give an account of its stewardship of the patronage which you have so generously extended.

Electricity in Gas Works

Though in a sense competitive systems, the co-operation of gas and electricity has long been advantageously applied. Gas engineers have not failed to recognize the conveniences and advantages of electric power in gas works practice. The electrical engineer on the other hand may even regard it as complimentary to his system of power that it finds application to the special needs of the gas industry. The combination involves "the judicious selection and intelligent application of nature's forces to achieve a given object with the least expenditure of energy." Electrical power in gas works first found application in the "De Brouwer" stoking machine applied by its inventor in the Bruges gas works nearly twenty years ago, since which time no very great change from the original design has been effected. This mechanical charging has doubtless exerted a marked influence on the persistence of the horizontal retort, and enabled it to survive the introduction of the vertical retort with its continuous and automatic charge and discharge.

The success of this introduction paved a way for wider extensions. Small gas-driven sets first gave place to steam units which in the earlier types, and scattered as they were over wide areas with insufficiently lagged steam pipes, probably consumed steam at the rate of 100 lb. per B.h.p. Later installations installed high-speed engines of the Bellis type. For steam raising coke breeze, a drug in the market, made a suitable and cheap fuel when burned under proper conditions. The electric plant has now so increased that a moderate-sized provincial gas works may generate as many as half a million electrical units per annum. For charging and discharging retorts, for cranes, exhausters, rotary washers and pumps, gas boosters and blast fans, over so wide a field, electrical power finds efficient application. Even down to metering the gas by means of a Thomas electrical meter precision of a scientific order is attained.

American Gas Journal

SIXTY-FIRST YEAR

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Contents of This Issue

A CONSUMER'S VIEWPOINT—BY A GAS USER.... 309

PROBLEMS OF THE GAS INDUSTRY—BY BRUNO RAHN 311

INDIANAPOLIS COMPANY FIGHT 313

REDUCING THE B.T.U. STANDARD—BY A. F. DAVEY 316

BEING A GOOD CUSTOMER OF THE UNIVERSITY—BY PROF. O. L. KOWALKE 317

EDITORIALS 319

ASK RESTRICTED USE OF NATURAL GAS..... 321

COAL TAR DISTILLATION—BY MARK MEREDITH.. 323

LAYING A TWELVE-INCH SUBMARINE GAS MAIN—BY WILLIAM F. MILLER 324

PUBLIC UTILITIES SECURITIES MARKET REPORT.. 328

NEWS OF THE GAS INDUSTRY 329

As the Journal Views It

False Impression Corrected

To some, progress is incomprehensible. They confuse progress and change and accordingly are led astray. This evidently is what has happened to one of our contemporaries. They have confused progress and change.

We hope our readers will pardon us if we halt the orderly procession of events while we give a lesson in the elementary history of the gas industry. After all, we feel sure, if the lesson is properly digested then the industry which we have served so well, if we will believe our many correspondents, will be benefited and our contemporary will be enabled to increase its knowledge of our field. Now to proceed with the lesson:

When this paper was established, sixty-two years ago, gas was used almost exclusively for lighting purposes. The men who composed the industry at that time were interested in that subject and they sought authoritative information regarding it. This information the JOURNAL was able to give and its name, the "American Gas Light Journal," told of its desire to serve, as it also aided the gas men to increase their worth to the consumers.

As the field progressed and grew the "American Gas Light Journal" grew with it. In fact, we have been told that we are responsible for much of the advance that has been made in the use of gas. That, however, is beside the question we are discussing.

As new uses were found for gas the "American Gas Light Journal" described them. Its service enlarged to such an extent that gas men generally felt that we were doing an injustice to the field by not adding a description of all our activities to our name. We

hesitated long in this step. But the demand continued to grow until we were no longer able to ignore it. Thus it was in 1917 that the "American Gas Light Journal," which has ever stood for the best in the gas field, became the "American Gas Engineering Journal." We were applauded for our step. Gas men hailed it as a decided advance and we felt that we had once again proven our desire to serve.

But all men are not prophets, nor is it given to us to sit back and judge the work of others. Rather we are so busy helping to accomplish that work that we have no time to debate whether some one thing or another has fallen by the wayside.

During the four years prior to March 1, 1921, the "American Gas Engineering Journal" fulfilled its mission. (Again we refer to our files of correspondence from satisfied and delighted readers.)

The World War changed conditions. New phases of our industry had to be met and the way had to be shown that the mistakes made might be few and less costly. Again the gas industry turned to its natural leader, the JOURNAL, with its demand. Who are we to stand against the desires of many? Accordingly, once again we changed our name, becoming the AMERICAN GAS JOURNAL.

Now as to the work that the Journal has done: We make the unqualified statement that during the past four years we have published more real authoritative, informative articles on the subject of gas lighting than has our contemporary. We refer those interested to the file copies of both publications. As to engineering we have ever led in that field and we have been and are to-day recognizd as the leading authority on gas engineering subjects in the United States. We challenge any one to refute these statements.

As to the question of whether gas lighting is no longer important we would refer our contemporary to the figures of the total consumption of gas for lighting during the year of 1920. The percentages are not so great, perhaps as of years ago, but the cubic footage is decidedly greater.

The gas field has progressed and is going to continue to progress and the AMERICAN GAS JOURNAL is going to do its best to help in this direction. It is to help that progress that the change of name and the other improvements which have been the subject of such favorable comment were made. For instance, the merchandising of appliances has become of paramount importance and the JOURNAL, always the leader and quick to sense the trend of affairs, has and will continue to devote the first issue of each month to this vital part of our business. We refer to our files for a verification of this statement.

Withal we are glad of this opportunity to go further into the subject of the progress that is being made by the JOURNAL as is shown by our change of name. Modesty had moved us to withhold much of that which we have just discussed, but now that we have had this chance to deal with this matter we are indeed thankful to our contemporary. The JOURNAL will always be ready to defend its name and the industry from attacks from no matter what source.

Adding Red Tape to Our Business

So much red tape is forced on gas companies by utilities commissions that we suppose it is only natural that gas men should fall into the habit of insisting upon a certain amount in the conduct of their own business. This was recently impressed by a report that was examined. It was fully twelve pages long, was carefully prepared and had evidently consumed a great deal of time. It was the work of an executive who was very proud of his report. But after going over it carefully we were forced to the opinion that the particular executive in question must have found time hanging pretty heavily on his hands.

Most commercial business is conducted with the least amount of red tape and so-called "system" possible, but now and again we run across some business that is busily engaged in running its systems. In fact, some of them are so tied up in this important (?) matter that their customers are more or less neglected.

We should hate to believe that gas men as a whole are inclined to devote their time to endless, pointless reports and analyses, particularly where they accomplish nothing and in many cases are founded on false premises. It seems to us that if they would devote the time thus wasted to improving their service to the consumers they would be doing a great deal more for the industry as a whole.

We are sure that gas company men will agree that some of the endless reports and compilations that commissions require are ridiculous enough without our adding to our own burdens. If our business is conducted along right lines then we won't need these reports. If we have neglected our business so that we must be brought in touch with it through this method then something is wrong with us. But after all, we don't want any red tape.

Helping Out

From reports that have been received it is evident that some gas companies have taken the advice of the JOURNAL and are either placing or about to place orders for gas burning appliances. This is surely a step in the right direction, for it means that there will be a revival of business shortly. If gas men will aid by buying, even though it is in small lots, it will be only a short time until the business has regained its rightful prosperity and the wheels of progress will once again be going around as rapidly as in the past.

But this is the ideal time for a real campaign to be put in. The country has been awaiting a resumption of business and we can do our part.

Ask Restricted Use of Natural Gas

Pittsburgh Chamber of Commerce Makes Recommendation

At the regular monthly meeting of the Chamber of Commerce of Pittsburgh, held March 17, the committee on power and fuel offered the following resolutions which were accepted by the chamber:

Whereas, The Chamber of Commerce of Pittsburgh was requested to call upon the Public Service Commission of the State of Pennsylvania to prohibit the use of natural gas for industrial purposes, between Jan. 1 and April 1, 1921, and thereafter between Nov. 1 and April 1 of each succeeding year; and

Whereas, The foregoing request was later modified to provide for the restricting of natural gas by the industries between the period of Nov. 1 and April 1 of each year, to an extent that will allow the largest possible use of natural gas for domestic consumers; and

Whereas, From information received from the local gas companies, it appears that in Jan., 1918, 1,500,000,000 cu. ft. of gas was sold to industrial consumers, out of 9,000,000,000 ft. sold to all consumers during the same month, or the gas sold to domestic consumers was five times as much as sold to all others; and

Whereas, During the months of May, June, July and Aug., 1917, out of the approximate total sale per month of about 7,500,000,000 cu. ft. to all consumers, 6,300,000,000 cu. ft. were sold to industrial consumers and about 1,200,000,000 to domestic consumers; and

Whereas, These records, which are typical of other corresponding months in 1918 and 1919, indicate that in the cold months five times as much gas has been supplied to the domestic consumers as to all others, while in the warmer months the domestic consumers can take only less than one-fifth of the gas sold to industrial consumers; and

Whereas, It must be evident to all that in order to provide for the irregular demands of the domestic consumers, varying from a little over 1,000,000,000 in the month of August to as much as 7,000,000,000 in January, there must be some regular outlet for the surplus during the greater part of the year; and

Whereas, The industrial consumers who constitute that regular outlet for the surplus must be given reasonably regular supplies of gas through the year when at all possible, or they would be compelled to arrange their plants to consume other fuel, and cease to be consumers of the surplus gas, which the domestic consumers could not take in the warmer months; and

Whereas, In order to supply to the domestic consumers the great volume of gas required in the winter months, it is necessary that the industries take the surplus gas during the larger parts of the year, or the cost of gas to the domestic consumers would be prohibitive; and

Whereas, The gas companies and the industrial consumers now recognize the prior right of the domestic consumers, and the use of gas by the industrial consumers is, by mutual agreement, restricted in times of emergency to the amount absolutely necessary to preserve life and property in the industrial plants; be it therefore

Resolved, That so long as the gas companies furnishing service in the Pittsburgh district and the various industries of the Pittsburgh district continue to recognize the prior right of domestic consumers to the use of natural gas in any emergency, and during any such emergency, restrict the use of natural gas by industrial consumers to such an amount as is necessary to preserve life and property, no action be taken by the Chamber of Commerce of Pittsburgh in reference to requesting an order of the Public Service Commission, as suggested by a member of the chamber in his resolution of Dec. 1, 1920; and be it further

Resolved, That the Chamber of Commerce urges upon the domestic consumers of natural gas the importance of continuing the installation of gas saving appliances which will prolong the use of natural gas as a fuel and reduce the outlay of the domestic consumer for gas; and be it further

Resolved, That the city council be requested to pass an ordinance requiring that before permits are issued for new buildings adequate flue provision shall be made in the plans for the consumption of coal or other fuel for heating purposes.

A Consumer's Viewpoint

(*Continued from page* 310.)

so I wanted to know the reason. I dropped into the gas company office. The first fellow I spotted was smiling and he came across the office about as quickly and smoothly as anybody I ever saw. He shook hands with me. I don't know how he managed to get possession of my hand but he did and inquired what he could do for me. I started to explain. He interrupted me, not abruptly but politely to tell me that the man who had charge of that work was engaged just at that minute so he would save me from having to repeat my story. In the meantime, had I seen the new room heater that the company was featuring. I started to protest that I wasn't going to buy. He smiled cheerfully back at me and told me that was all right, that even if I didn't want to buy it was a very interesting heater and perhaps some of my friends might be interested. He protested that it wasn't a waste of time but a real pleasure.

The Foundation for a Sale

Although that took place several months ago I haven't yet awakened from the daze that he put me into and I surely get a lot of pleasure out of that heater that he sold me, not then but two weeks later.

As to the complaint. That was disposed of in a jiffy. There was an investigatio made at once, while I waited, and it was found that through some error I had been given another man's bill. The apology that came with that statement made me feel good for the rest of the day and I remarked it that night at dinner. Also I told all of the fellows in the bowling club about it when we met after dinner. In fact, I

believe that I must have told a lot of people about it.

There has been a great deal of agitation in our town about gas rate increases. The newspapers have been filled with statements from both sides. But I like the statements issued by the company a lot better than those that emanate from the politicians. In the first place, they deal with facts and are businesslike, whereas those from the politicians it seems to me are principally mud slinging.

I don't know if this changed attitude has taken place all over the country. I am inclined to doubt it, but I must say that it has been good business for our particular company to adopt its present methods. I know from the acquaintanceship in our city that more than 50 per cent of our people are with the company and we are not going to allow it to be put in that position where it can't serve us right. Maybe my bills are a trifle higher. They haven't advanced as much as the cost of going to the movies has advanced and after all I am of the opinion that gas is a trifle more important to me than the movies.

Not All Have Changed

When I say that I don't know whether this change for the better on the part of gas companies is general throughout the country I am not sticking closely to the truth. I know that there are some cases where there has been no change.

Recently a friend and I were discussing this gas company situation and he related an instance of what had taken place in his home city. With a great blare of trumpets the gas company announced that it had seen the error of its ways and that from this time forth there would be no reason to find fault with it. Everything would be open and aboveboard, its affairs were its consumers' affairs and that furthermore the policy of the company was service, all in capitals.

It sounded fine and it read well, but it didn't work out. Everything started off in great shape until some little thing went wrong. Then the gas company made its decision and right now I want to say that all of its protestations were swept off the board and it went around whining against the deal that it was being handed. But the company officials couldn't see that it was to blame for the condition that had arisen; in fact, it blamed everybody in sight and denounced everybody in office for its troubles. It has had a rate increase, too, a pretty big one. But my friend has had assurances that this increase isn't going to last forever. In fact, there is a very definite movement on to force a reduction. If the company loses money so much the better, for it will mean that somebody else will take over the company and operate it and will give the service that it claims it wants to. At any rate, those in charge of it at present will be swept out if it is possible to force them out.

After hearing the story of my friend I have an unholy desire to move to that town and get into the fight. I have collected some of this world's goods and have plenty of leisure and, best of all, I am Irish and I love a fight. I don't know but what I will move at that.

Reducing the B.t.u. Standard

(*Continued from page* 316.)

dition that might cause an insufficient supply of gas were made note of. This inspection showed that there was more trouble had with combination ranges and other stoves purchased from dealers which were not built according to the gas company's standard. In many of these cases we were unable to make the proper adjustments. Our men had very few complaints made to them of any description.

The total increase in consumption for 1918, 1919 and 1920 and the consumption per meter for the same periods are as shown.

In 1920 we show the consumption for the first eight months, and then singly for each of the following months:

1918—B.t.u. average	600
Total consumption increased	5.6 per cent
Gas sold per meter increased	3.0 per cent
1919—B.t.u. average	600
Total consumption increased	10.0 per cent
Gas sold per meter increased	6.4 per cent
First 8 months of 1920, average B.t.u.	597
Total consumption increased	19.8 per cent
Gas sold per meter increased	15.0 per cent
September—B.t.u. decreased	3.5 per cent
Total consumption increased	17.7 per cent
Gas sold per meter increased	4.9 per cent
October — B.t.u. decreased	7.0 per cent
Total consumption increased	33.2 per cent
Gas sold per meter increased	18.9 per cent
November—B.t.u. decreased	10.0 per cent
Total consumption increased	16.5 per cent
Gas sold per meter increased	4.1 per cent
December—B.t.u. decreased	12.1 per cent
Total consumption increased	19.4 per cent
Gas sold per meter increased	8.2 per cent
January — B.t.u. decreased	11.6 per cent
Total consumption increased	18.0 per cent
Gas sold per meter increased	12.4 per cent
February — B.t.u. decreased	12.6 per cent
Total consumption increased	17.9 per cent
Gas sold per meter increased	12.2 per cent

You will note from the above tabulation that during the first eight months of 1920, when the B.t.u. averaged 597, the gas sold per meter increased 15 per cent. The average increase during the six months from August until March in gas sold per meter, when the B.t.u. averaged 543, was 10.1 per cent. In this comparison we must bear in mind that we are comparing one of the best years for gas consumption during the early winter months we have ever had against 1919, which was just the opposite. You will note during the month of October there was an increase in the total consumption of 33 per cent and gas sold per meter of approximately 19 per cent. In addition to the extreme cold weather in October, 1919, we were operating at that time under the daylight-saving law. As this company has a great deal of gas lighting, it affected our sendout. The very mild weather during the month of October, 1920, and also September, increased the late yield of fruit tremendously. As the price of sugar dropped during this

time, many people who had not planned on canning much fruit due to the changed condition put up considerable during the month of October. It was also during this month that the new indoor sport of home-brewing came into use.

The average consumer of gas is not interested in the heating value standard which may be adopted or required. He is interested in the monthly bill, and first of all in SERVICE.

From the experience we have had to date under the reduced standard we firmly believe the customer gets better service and that his consumption has not been increased. Assuming, of course, that he has not added gas appliances or is not using gas for more purposes. We believe a very important thing is to have a uniform quality of gas, with only slight variation from day to day and with sufficient pressure back of it. We believe the reduced standard is a forward step and that the Wisconsin Gas Association deserves much credit for its work in bringing this about.

Coal-Tar Distillation

By Mark Meredith

Patents in respect of coal-tar distillation were first taken out of England in 1691, but it was not until 1838 when Mansfield obtained benzol, that interest was aroused. Ten years later, the distillation of coal tar was a commercial enterprise.

The sources of coal tar were the gas works and the coke oven plants, and the quality of the tar varied with the temperature of the coal retorts. Tar of high specific gravity contained more pitch and less naphtha than a light gravity tar. The distillation of the crude tar usually took place in a still with a concave bottom. The tar was admitted through an inlet at the side near the top of the still, and the vapors passed through a swan-neck at the top of the still, while the pitch could be run off at the bottom. A steam pipe was connected to a perforated plate at the bottom of the still for heating and agitating the tar.

Of the two methods of working, the intermittent and the continuous systems the latter was in more general use and comprised a battery of five or six stills connected together. The first still was charged with pre-heated crude tar and heated to the required temperature. The distillate from the first still usually consisted of the water and crude ammonia the water being really a very weak ammonia liquor. The residue is passed into the next still, and further heated, giving a crude light oil from 0.905 to 0.920 sp. gr. From the new residue transferred to the third still, was obtained crude carbolic oil of a sp. gr. 0.960 to 1.009. Following this system fractions were then obtained of creosote oil (1.03 to 1.04), heavy creosote oil (1.05 to 1.07), and crude anthracene oil (1.07 to 1.10). The residue from the last still was pitch, and was run into suitable cooling tanks behind the stills.

Washing Crude Carbolic Oil

The washing of the crude carbolic oils was effected by agitating with caustic soda, giving sodium phenate and sodium cresylate. The oil and soda were run together through a number of chambers into a separating tank, the partly washed oil being drawn off, and the operation repeated with fresh caustic, all the tar acids remaining from the first separating tank being removed in the second. The products from the separation were sodium cresylate and phenate, and the washed oil. To the sodium carbonate lime was added giving caustic soda again. To separate the crude tar acids with alkaline solution was decomposed usually, by CO_2, and the crude acids were dried up by the addition of strong brown sulphuric acid, leaving only 10 per cent of water. This was removed by distillation, and the acids were further purified in a steam-heated still. In separating the phenal from the cresol, the former boiled at 180 deg. Cent. and the latter at 202 deg. Cent., so that with further reasonable care no difficulty was experienced, but the separation of the phenol from the cresol, the former boiled at 180 deg. Cent. and the latter at 202 deg. Cent., so that with reasonable care no difficulty was experienced, but with the separation of the cresol into ortho-cresol-meta, and para was a more difficult matter.

The ortho-cresol was first given off, but the boiling points of meta and para being 210 deg. and 202 deg. respectively, they were separated centrifugally, crystals of para and a solution of meta being obtained. The cresols could then be distilled six or seven times for a complete purification.

Obtaining Benzol and Toluol

To obtain benzol and toluol, the crude naphtha of the first fraction was thoroughly washed and passed through a rectifying column. To purify the benzol completely the vapor was passed through a dephlegmator connected to the fractionating column used. By this means a product was obtained of which 95 per cent would distill over within a range of 80.5 deg. cent. and 31.3 deg. The result was a remarkable achievement, for a product of such purity to be obtained almost direct from the crude tar. Further distillation of the same fraction resulted in the production of toluol and then the aylols, according as the temperature was regulated.

The anthracene in the last fraction was passed through a filter press, giving a paste of 10 per cent of anthracene. This was treated by hot pressing and a commercial product, crude anthracene 40 per cent obtained. The creosote oil was often sent to the gas works for the recovery of benzol from the gas, while the heavy creosote found a number of common uses, such as wood preservative, sheep digs, and fuel oil for annealing furnaces, etc.

Commission Forms New Gas Rate Plan

Oklahoma City, Okla.—A solution of "the city gas rate plan" in charging for gas in cities served by the Oklahoma Natural Gas Company was announced March 31 by the Corporation Commission and approved in an order issued Friday, April 1, commissioners said.

The new order will be one to test the feasibility of this method of charging, the commission said, and provides for the local company to pay for gas upon a per cent of the amount actually delivered to individual customers. The present method, according to testimony before the commission, exempts the local company from pay for loss of gas caused by leaks in their own system and "ending waste methods of handling gas."

Laying a 12-Inch Submarine Gas Main

Paper Read at Wisconsin Gas Association Meeting

By WILLIAM F. MILLER

Green Bay, a city of 31,000 population, is situated on both sides of the Fox River which flows north into Green Bay. From a gas consumption standpoint the river evenly divides the city. The gas works is established on the east side of the river, which necessitates feeding the west side distribution system through submarine mains laid in the bed of Fox River.

The first submarine main installed gas a six-inch cast-iron main laid up with lead joints and crossing the Fox River at Main Street bridge. This location was chosen because at the time of installation only the north end of the west side was populated. Later developments were toward the south and extensions to the distribution system necessitated the installation of an auxiliary four-inch high-pressure submarine main at the Mason Street bridge.

When the old Mason Street swing bridge was replaced by a modern bascule bridge, the abutments and piers for this bridge interfered with the existing four-inch high-pressure main and necessitated its removal and replacement by a two-inch high-pressure line laid up with double street ells. Upon completion of the bridge, a second two-inch high-pressure line laid up with Dresser couplings was installed.

The supply of gas delivered by the six-inch low-pressure main and the two two-inch high-pressure mains soon proved inadequate for the increasing demand of the west side. Further reinforcement was added by installing a six-inch low-pressure main at the Mason Street bridge. The new main was of steel pipe laid up with Dresser couplings. This six-inch low-pressure main was later changed to high-pressure by connecting it with the old four-inch high-pressure supply line.

Increased Consumption a Problem

Further increases in gas consumption presented a new problem. Our distribution holder of 300,000 cu. ft. capacity throws a maximum pressure of seven inches of water. On days of heavy gas consumption this holder would uncup and pressure conditions would be particularly bad on the west side.

Adding a water gas machine to the plant equipment provided additional manufacturing capacity and flexibility. Pressures on the east side were bolstered up by high pressure reinforcement. Delivering gas at adequate pressure to the west side still presented the old difficulty—insufficient main capacity.

It was finally decided to lay a twelve-inch main from the outlet of the distribution holder to the east bank of Fox River at the foot of Pine Street and to construct a twelve-inch submarine main across Fox River to tie into the west side distribution system. A No. 5 Sturtevant booster capable of maintaining twelve-inch pressure was to be installed on this line at the gas works; the pressure to be regulated by a governor stationed on the west side.

The first procedure was to get a permit from the Government Engineering Department to lay a submarine main under Fox River. This permission was granted, the permit specifying that the minimum depth of the main top be thirty feet below datum at the east dock line and twenty-six feet below datum at the west dock line.

Used Steel Pipe

On account of the price, weight in handling, flexibilty when lowering into the river, and method of joining, it was planned to use steel pipe. The pipe selected was twelve-inch standard line pipe weighing forty-nine pounds per foot and cut in twenty-foot lengths threaded on both ends. These lengths were to be connected with special river sleeves.

The river sleeve selected is constructed as follows: A twelve-inch steel coupling five inches long is used as a core for a cast iron sleeve. A rubber gasket and a malleable iron follower slip over the ends of the pipes to be connected; one on each end of the sleeve. The rubber gasket, one-inch wide by one-half-inch thick in cross section, has a triangular groove cut in the side next to the sleeve and a bevel on the side next to the follower. These gaskets are tipped with canvas to protect the rubber from decomposition by contact with condensates.

The followers are bolted to the sleeves by sixteen five-eighth-inch machine bolts, eight on each end, to draw up the gaskets. This makes a double joint consisting of the screw coupling and the two gaskets that is absolutely gas tight. The weight of this sleeve is 275 lb. We are indebted to the S. R. Dresser Manufacturing Company of Bradford, Pa., for the lantern slides of the "Dresser sleeve" used in constructing our submarine main.

The site selected for this main was at a point where the river is approximately 1,100 ft. wide. The east bank of the river is filled up to the dock line but the river extends about 400 ft. beyond the west dock line. These dock lines are about 670 ft. apart; the normal channel of the river lying midway between and with a maximum depth of twenty-four feet.

The main when installed was to grade to a point behind the east dock line. According to Government permit, the main at the east dock line would lie four feet lower than at the west dock line. Since the distance between dock lines was approximately 670 ft., a grade of one inch per fourteen feet of main was established. Beyond the west dock line the depth decreased from twenty-six feet at the dock line to four feet at the shore line; a grade of one foot per twenty feet of main.

Carrying on the Work

A contract for installing this main was let to a local contractor and dredging operations were commenced A large dipper dredge was used to dig the trench between dock lines. West of the west dock line the river was too shallow to float the large dredge and an orange peel bucket rigged on a boom attached to a pile driving outfit was used to excavate

this part of the trench. Still closer to the west shore line it was necessary to dig the trench with pick and shovel.

The original plan specified that the main be laid in the bottom of the trench dug by the dredge. Upon completion of the dredging, soundings taken with a pole indicated that the bottom of the river varied considerably in bearing qualities. A new plan was adopted which called for driving two piles straddle the trench and capping them with a six by eight inch timber to form bents for supporting the main.

The location of these bents was determined by the stiffness of the pipe and not by the load. One foot of twelve-inch pipe weighing forty-nine pounds displaces fifty-five pounds of water. Hence a resultant force of six pounds per foot would be exerted upward when the pipe was immersed. A "Dresser sleeve" weighing 275 lb. displaces 155 lb. of water. Therefore a resultant force of 120 lb. would act downward on each coupling. Since one coupling was used for every twenty feet of pipe, this force would be distributed six pounds per foot. The resultant of these two six-pound forces, one acting upward and the other downward, would be zero and the main would float. This proved to be the case when we later attempted to lower the main. Since bearing stresses were negligible, it was decided to locate these piling bents at forty-foot intervals between dock lines, so that a maximum of two joints would lie between bents.

Accordingly fifty-five-foot piles were driven from above the water line to straddle the trench at forty-foot intervals. At eighty-foot intervals a third pile was driven on the down stream side of the piles forming the bent, to act as a jim pole from which to lower the main. These additional piles were temporary and were to be pulled when the main was in place.

Piling was driven for eighteen bents. Fifty-five-foot piles were selected because they would drive with a minimum penetration of twenty feet. The next problem was to cut these piles off at the proper depth and to complete the bent by drifting the cap to the piles.

Datum was located from a Government bench mark and a point in the plant of datum was established on the east dock line. A transit was then located on the wet dock line and a four-foot gradient was established between dock lines by driving nails into the piling at points of intersection of this gradient line. A diver was then employed to cut off the piling and drift on the caps. The points of cut-off were determined by butting a thirty-foot-six-inch pole against the nail driven into the top of the pile and setting another nail just below this pole. Guide strips were nailed to both piles at the cut-off points and the sawing was done with a one-man cross cut saw. The cap was then marked, drilled, and sunk into position with weights The diver drove a three-quarter by eighteen inch drift bolt through each end of the cap into the piles, thus completing the bent.

This stage of the procedure proved to be very tedious. The diver was working through the ice and in muddy water where it was impossible to see the work. Measurements taken of sawed off portions of the piling showed that actual cutoff points varied only one-eighth of an inch one way or the other from established points. The best progress made by one diver in an eight-hour day was sawing off four piles and setting two caps.

The pipe for the river main was given three coats of specially prepared Pyro pipe paint applied hot with a brush at the gas plant. The pipe was then hauled to the river bank and out on the ice where it was placed directly over the center line of the pile bents. The first length of pipe was snubbed to prevent turning while the Dresser sleeve was screwed up with two fifty-four-inch chain tongs with twenty-foot pipe extensions on the handles. Four men to each chain tong were required for screwing up the pipe. A mixture of one-third white lead and two-thirds red lead was used in making the joints. After two lengths of pipe were connected one man followed putting bolts in the couplings and drawing up the gaskets. When these joints were tight, the main was again gone over carefully with pipe paint. The condition of the ice being precarious, it was thought advisable to hang the pipe as connected in slings suspended from the temporary piles. In order to distribute the weight over a greater area of ice the main was rested on cross timbers. This plan was followed throughout the connecting of the pipe.

Concrete Used

The drip pot, to be installed behind the east dock line, consisted of an eighteen-foot length of twelve-inch pipe with a cast-iron plug leaded into the end. A foot of concrete was poured inside the pipe on top of the cap to insure a water and gas tight joint. A steel point bolted to a coupling was screwed on the bottom end of this drip pipe. This was done to allow the drip to be driven by a pile driver, if necessary.

The drip was joined to a twelve-inch Dresser tee connected to the river main and set bull headed in a twelve-inch riser thirty feet long. This tee had no threads; the pipe simply slipping into the runs of the tee and butting up against lugs. Malleable iron followers and rubber gaskets similar to those used on the Dresser sleeve were drawn up by bolts. As a precaution against leakage these joints were filled with lead before the gaskets were made tight.

In order to prevent any tendency of the river main to pull away from the tee, a one-inch rod threaded on both ends and bent into a "U" bolt was slipped around the tee and fastened to the river main by a one-half by three inch split band placed just behind the first Dresser sleeve. As an added precaution against any lateral movement, additional bands were placed on the drip and riser; one above and one below the tee. These bands were fastened by tie rods to a second band placed on the river main.

Upon completion of the work of connections the ends of the main were sealed by blank flanges and the main was tested for leaks by pumping up fifty pounds air pressure with a six-inch Westinghouse locomotive type air compressor. The maximum pressure to be carried at present by the main will be twelve pounds. We decided to use a factor of safety of four to provide for future increases in pressure if required.

This air test showed the Dresser sleeves to be absolutely tight. Some of the pipe used in the main had standard steel couplings in the middle of each length. This pipe was purchased last year when material was scarce and we were unable to get enough straight

lengths to complete the main. Under fifteen-pound pressure these couplings leaked badly. The lap welds on one length of pipe opened up for a distance of one foot on one end where it entered the Dresser sleeve. It was necessary to spot weld the seam of this pipe and also the seams on each of the standard couplings. When this welding was completed the main was again tested with fifty pounds air pressure and was found to be tight.

An argument as to whether a twelve-inch standard line pipe would bend without straining the joints was settled by chaining one end of a 100-ft length of main to a pile and applying a strain to the free end with a block and tackle. The pipe bent readily and without permanent distortion; the bends coming in the middle of pipe lengths and not at points next to Dresser sleeves.

The main was now hung in slings attached to block and tackle which were fastened at eighty-foot intervals to the temporary piling. The ice was cut and the main lowered until it rested on the surface of the water. This completed all preliminary work preparatory to the actual laying of the main.

During the latter stages of this preliminary work, the weather had moderated to such an extent that the ice became unsafe to work on. The unexpected delays occasioned by the necessary welding operations nearly wrecked our plans for lowering the main. On the 16th of February the main was ready to lower with the ice on the river breaking up before a sixty-mile gale.

Lowering the Main

A man stationed at each of the block and falls was instructed to lower his section of main a slight distance at a time at signals given by his foreman. The riser from the drip was set in the guides of a pile driver on the east dock, so that it could be driven to a point where the footing offered appreciable resistance to the steel point of the drip. Below this point it was planned to sink the drip and riser with a water jet.

The drip and riser was lowered ten feet by the pile driver. As soon as the pressure exerted by the main against the ice was relieved by the main being lowered, the wind broke up the ice and a scow and pile driver which had been frozen in on the upstream side of the main broke loose and drifted across the main. Fortunately these craft did not have sufficient draught to snag the partially lowered main. In attempting to check the mad career of the pile driver down stream, a man snubbed a line around one of the temporary piles. The strain was so great that the pile was almost pulled before the man let go with the line, and the pile driver raced down the river and crashed into the protection piling of Main Street bridge. The men stationed at the block and falls were marooned on top of the piles and had a perilous journey ashore in the boat which rescued them from their predicament.

Further attempts to lower the main were fruitless; the weight of the main being insufficient to sink it into place. Local junk yards were visited and large chunks of cast iron were purchased with which to weight the main. One of these weights was fastened to each end of a length of steel cable. This cable was given several wraps around the main, the weights hanging on either side. After hanging 5,400 pounds of iron on the main which still refused to sink, this plan was abandoned in favor of landing the main on the bents by partially filling it with water.

The main was finally submerged after several interruptions caused by the point on the drip coming in contact with obstructions which had to be removed by a diver. The next problem was to keep the main in position after the water had been pumped out of it.

It was not considered practical to strap the main to the cap as any tension would have a tendency to loosen the cap from the pile. It was therefore decided to weight the main at each bent. Scrap street car wheels weighing 500 lb. apiece were used for this purpose. These wheels were lowered with a pile driver and located at the bents by the diver.

Second Test

After the main was patrolled and weighted by the diver, another fifty pounds of air pressure was pumped into the main to test for any leaks which might have developed due to lowering strains. The main was found to be absolutely tight. To prevent any tendency of the current to shift the main from its initial position, wedge blocks were drifted to the caps on each side of the main.

The west shore connection was then made to an existing main. Behind the east dock line another twelve-inch Dresser tee was connected bullheaded to the top end of the twelve-inch thirty-foot riser from the drip. This tee was then connected to the east shore line.

A blank flange was bolted to the top of this tee. This flange had a two-inch tap into which a two-inch suction line was screwed. The suction line was placed inside the riser connecting the drip pot with a pump stand. The pump cylinder was placed midway in this suction line. This made all pump parts enclosed in the riser where they can easily be removed for repairs or adjustments.

As all bills against this main have not been entered to date, we cannot give the exact cost of the completed main. A very close approximation is $16.50 per foot. This includes all labor and material charges against the main up to the time of completion.

By-Products of the Distillation of Coal

In principle every industrial works should confine its operations to the production of by-products which may be advantageously sold without hindrance to the principal manufacture, through complicated accessory installations requiring a different organization. Only very large works can with safety to its commercial position, venture to divide itself into departments which have no closer connection with the principal works than a supply of the raw materials.

The growing demand for benzol, however, may justify a gas works of medium size in undertaking its preparation. But such substances are aniline, synthetic phenol, saccharine, artificial musk, artificial indigo, alizarine, etc., are outside the range of profitable produce for ordinary gas works. Sulphate of ammonia may be regarded as a product of gas works that fits in very well with the ordinary operations of gas manufacture.

The Paris Gas Works Company has installed an important plant dealing with the distillation of tar and the recovery of sulphate of ammonia, naphthalene and benzol. This plant possesses all up-to-date improvements. The light oil, or crude benzol, are distilled in fixe-ton vessels, heated by steam.

Power in the Gas Works

While various scientists and engineers are putting forward the relative merits of gas and electricity for heating, lighting and for the generation of power, it might appear almost in the nature of a paradox that there should be many gas works both in this country and abroad where electricity is used on an extensive scale, if not indeed for the first, at least for the second and particularly for the third of these purposes. Anyone who is familiar with the equipment of an up-to-date gas plant is aware that the use of electricity finds a place in the general scheme of things, but unless he is intimately concerned with the question of the cost of generating gas he may not be aware of the important part that electricity has played in the economy of these undertakings. It will not be denied, however, that if a limited use of electric power has resulted in substantial economies, a far wider application of the same principle would be well justified by the results achieved.

It is generally recognized that the first steps towards economy lie in the abolition of the isolated power plants which are scattered about a works—particularly if those plants are steam driven—and the production in bulk of all power required at a centrally situated powerhouse, from which it could be economically distributed to those points at which a demand for power exists. The modern gas works with its many power using units offers ideal facilities for the practical demonstration of this principle, as also do many other industries which could be named, and when one considers that steam engines situated far away from the main boiler and condensing plant, therefore running non-condensing, may be using as much as 100 lb. of steam per B.h.p., the wide scope for improvement is obvious. There is, however, one great drawback to the adoption of the electrical system outlined above, and that is, of course, the capital cost involved. Particularly at the present time, when expenditure on capital account must be kept down to the lowest possible limits, engineers are more or less compelled to carry on with less economical plant provided it fulfills its functions, but where extensions are absolutely necessary or where plant has deteriorated to such an extent that renewal is imperative there is no reason why the change over should not be effected.

The problem of economical generation of power is greatly simplified in the gas works because of the facilities available. In the first place large quantities of steam are essential for the processes of coal gas and water gas manufacture, and it is not a difficult matter to arrange for the steam to be generated under the most economical conditions while coal or coke are available, there is also a large quantity of coke breeze which might otherwise be wasted, and this has been utilized most successfully for boiler fuel and in gas producers, thereby yielding a very low generation cost for fuel. In certain plants waste heat has been employed in the generation of steam, while in others the actual gas is employed in the generation of steam, while in others the actual gas is employed in the furnaces of the boilers. At the outset, therefore, the system has the advantage of a cheap supply of fuel in almost unlimited quantities. The type of generator employed depends, of course, upon the amount of energy that will be required and this problem presents no difficulty. The demand for power is considerable and, for instance, at Plymouth, England, where electricity is largely employed, the capacity of the power house is 540 kw. With a view to obtaining absolute security, stand by sets may be demanded, in which case these can be driven by gas engines. It will be of value to quote some of the purposes for which electrical power is employed on an up-to-date gas undertaking, as indicating the diversity of its application. These include motors for operating the machines for charging and discharging the retorts, and also for the various forms of gas and air compressors, exhausters, washers and hydro-extractors. As might be expected, electricity is now used in the operation of the numerous conveyors, telphers, cranes and hoists, as well as for the pumps and fans.

Not the least valuable advantage which accrues from the employment of electrically operated machinery lies in the fact that it enables very accurate data to be obtained as to the power consumed, and therefore the costs incurred in various parts of the works. It is widely recognized on all industrial power plants that economy can only be obtained when exact knowledge is available as to the consumption of energy at all stages of the processes undertaken. A study of what is being accomplished in the gas works is therefore of great value in indicating the advantages which follow in any works where power is employed in a scattered plant, from the centralization of power generation in one or two large electrical generators and its distribution to the various units throughout the works. Even when electricity is obtained from outside sources, as some of the gas undertakings have realized, the economy which can be obtained is often very considerable.

Public Service Corporation Gets Increase in Rates

Albany, N. Y.—The Public Service Commission, second district, authorized the Public Service Corporation of Long Island to charge in Plandome, Floral Park, Great Neck Estates and the town of North Hempstead $1.65 a thousand cubic feet for gas, with a discount of 10 cents a thousand for prompt payment and a monthly service charge of 85 cents a month a meter. The company petitioned for a service charge of $1 and a rate of $2.25 a thousand cubic feet.

The commission allows the rate to go into effect on five days' notice on or before April 15, and to continue in effect until June 30, 1921, and thereafter until changed by the commission. The time limit is the same as that of the Nassau & Suffolk Lighting Company, the commission holding that the rates of the two companies depend, to a certain extent, on the same conditions, and the uncertainty as to the future cost of producing gas makes a short term order advisable.

Commissioner Barhite refers to an increase in salaries of general officers of the company of $3,000 in 1920 over 1919 and an increase in law expenses of $4,800. No valid reason for the salary increases was given, he says, and the legal expenses which were probably caused by litigation over the rates should be spread over a number of years.

Public Utilities Securities Market Report

Prices of Representative Gas Bonds

(Quotations furnished by The National City Company)

Company	Issue	Maturity	—Market— Apr. 7, 1921 Bid	Asked
American Lt. & Trac. Co.	Five Year 6s	May 1, 1925	88½	89¼
Brooklyn Union Gas Co.	First Consol. 5s	May 1, 1945	76½	78
Columbia Gas & Elec. Co.	First 5s	Jan. 1, 1927	83½	84¾
Consol. Gas, Elec. Lt. & Pr. Co. of Baltimore	First Ref. 7½s	Dec. 1, 1945	99¼	100¼
Consol. Gas, Elec. Lt. & Pr. Co.	General 4½s	Feb. 14, 1935	75¼	76
Consol. Gas Co. of New York	Sec. Conv. 7s	Feb. 1, 1925	99¾	100
Consol. Gas Co. of New York	One Year Sec. 8s	Dec. 1, 1921	99¾	100
New Amsterdam Gas Co.	First Consol. 5s	Jan. 1, 1948	60	62
Denver Gas & Elec. Co.	Gen. (now 1st) 5s	May 1, 1949	81½	83
Detroit City Gas Co.	Gold 5s	Jan. 1, 1923	91½	94
Equitable Illum. Gas Lt. Co. of Philadelphia	First 5s	Jan. 1, 1928	94½	96
Hudson County Gas Co.	First 5s	Nov. 1, 1949	75	78
Laclede Gas Light Co.	Ref. & Ext. 5s	Apr. 1, 1934	74½	76
Louisville Gas & Elec. Co.	First & Ref. 7s	June 1, 1923	94	95½
Michigan Light Co.	First & Ref. 5s	Mar. 1, 1946	70	75
Milwaukee Gas Light Co.	First 4s	May 1, 1927	83	85
Pacific Gas & Elec. Co.	Gen. & Ref. 5s	Jan. 1, 1942	76¾	77½
Pacific Gas & Elec. Co.	Col. Tr. Conv. 7s	May 1, 1925	96	97
Pacific Gas & Elec. Co.	First & Ref. 7s	Dec. 1, 1940	98	99
Cal. Gas & Elec. Corp.	Unif. & Ref. 5s	Nov. 1, 1937	85	85½
Peoples' Gas Lt. & Coke Co.	Refunding 5s	Sept. 1, 1947	70½	71
Chicago Gas Lt. & Coke Co.	First 5s	July 1, 1937	72	74
Portland Gas & Coke Co.	First & Ref. 5s	Jan. 1, 1940	75½	77
Seattle Lighting Co.	Refunding 5s	Oct. 1, 1949	64	66½
Southern California Gas Co.	First 6s	Nov. 1, 1950	84	86
United Gas Improvement Co.	Two Year 8s	Feb. 1, 1923	99¼	99¾
Utica Gas & Electric Co.	Ref. & Ext. 5s	July 1, 1957	77	79
Washington Gas Light Co.	General 5s	Nov. 1, 1960	77	78
Western States Gas & Elec. Co. of California	First & Ref. 5s	June 1, 1941	73½	76

Cities Service Company

At the annual meeting of Cities Service Company to be held in Dover, Del., Tuesday, April 26, stockholders will be asked to approve an increase in the authorized amount of the common stock of the company from $50,000,000 to $100,000,000, the purpose of the increase being to provide additional common stock for regular stock dividends on the common stock, conversion of outstanding debentures and for other future corporate requirements. Cities Service Company has outstanding $29,192,592 principal amount convertible debentures, these debentures being convertible partly into Cities Service Company preferred stock and partly into Cities Service Company common stock. In addition, Cities Service Company is now paying stock dividends at the rate of 15 per cent a year in common stock at par on the common stock. Of the present authorized $50,000,000 common stock of the company, $47,985,798 had been issued up to March 10, 1921. In addition to other routine business, stockholders will be asked to authorize, or approve, the action of the directors in making a new contract with Henry L. Doherty & Co. as fiscal and operating agents of Cities Service Company, the present contract expiring May 1, 1921. The annual report of Cities Service Company for 1920 will be ready for distribution about April 15.

General Gas & Electric Year

New York, N. Y.—W. S. Barstow, president of the General Gas & Electric Company, in the annual report to the stockholders says: "During the past year the directors, after carefully considering the matter of coal supply, authorized the purchase of coal mines in West Virginia in order to protect as much as possible the requirements of the subsidiary companies. While the output of the mines up to date is not sufficient to take care of the entire requirements, the results even under these conditions have been gratifying, as the saving effected to the subsidiary companies has been substantial, and at the same time the coal company has shown satisfactory earnings. All the stock of this coal company, the Eastern Utilities Coal Company, is owned by your company subject to a comparatively small mortgage which is rapidly being retired through a sinking fund.

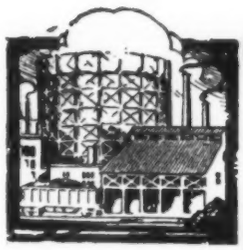
The income and profit and loss statement for the year ended Dec. 31, 1920, with comparisons, follows:

	1020	1919
Gross revenue	$537,594	$303,586
Expenses & taxes	525,914	18,705
Income charges	400,386	244.611
Net income	111,294	42,900
Surplus	153,723	63,255

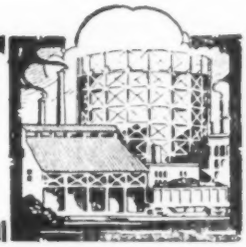
Earnings Drop Off

Baltimore , Md.—The Consolidated Gas, Electric Light & Power Company, of Baltimore, reports for last year profits of $1,406,474, or $9.62 a share, on the stock, against $1,592,089, or $10.90 a share, the preceding year.

Surplus was $40,379, against $36,063 in 1919.



NEWS OF THE GAS INDUSTRY



Gas Men Entertain

Fitchburg, Mass. — Fitchburg Gas & Electric Club was host to several guests, including former associates and city officials, at its rooms recently. Among the guests were officials and employees of the Worcester Gas Light Company, who provided the entertainers.

Clifton R. Hayes, manager of the engineering department of the Tenney Service and former local manager, was a speaker.

The program was opened as usual with a supper followed by a business meeting of very short duration. Manager Francis L. Ball was toastmaster at the after-dinner exercises.

Edward B. Ryan, superintendent of gas distribution had charge of the arrangements.

Manager Ball, in introducing the speakers, said that the meeting was in the nature of a reunion. Palmer York, formerly of this city, who was to have been a speaker, was detained by illness. Mr. Ball then called on Mr. Hayes, former manager, who said:

"I am sure it is a distinct pleasure to be here among old friends. One of the things that has impressed me to-night is the number of new faces. Almost the last day on which I was in this city I attended a meeting of this club and have never forgotten it as it was on that occasion you presented me with a handsome chair."

C. R. Paige, manager of the Worcester Gas Light Company, was the principal speaker. He touched on economic conditions. He reviewed world trade conditions briefly. He said:

"The situation that now confronts us is so serious as to cause every red-blooded man to give it a thought. We will pull out and it will furnish the greatest example of co-ordination the world has ever seen.

"In 1914 the country faced an upset which was general all over the world. The United States was called upon for intensive production and it produced. Facing a war that might last from two to twenty years, we caught up with needs of the times by a burst of speed. When the armistice came it found almost every firm overproduced and overstocked. Yet production kept on for some time in many plants, the hope being expressed that the conditions of trade would average themselves.

"Many automobile concerns especially were affected and then the banks were hard pressed to keep up their loans. Finally it became necessary to cut production and then the workingman began to be affected.

"It is in a time like this that the public utility shines forth. When conditions in the business world are bright, by a strange paradox the utility generally is quiet, but when conditions were reversed, then the utility generally stands out as a firm bulwark.

"The gas companies have a new conception of service to their customers, the public. We think of the meter now, not as a device to measure how much gas is used, but as a device to measure service."

Mr. Paige in conclusion said that he is familiar with the Fitchburg company, than which none was better in spirit and efficiency. He said that he never met a man who was the superior of "Eddie" Ryan, gas superintendent, as a first-aid and safety-first man. "He can be equaled perhaps but not beaten," was Mr. Paige's tribute. The fellow employees of Mr. Ryan gave him prolonged cheers when Mr. Paige extolled him.

Manager Ball turned over the entertainment end of the program to James F. Power, office manager of the Worcester Company. Mr. Power staged a fine show. George O'Brien, a Worcester Company collector, made a great hit with vocal solos. John Cairns, blackface monologist, pleased with dialect stories and patter.

Clayton Gerald gave one of the best female impersonations seen in this city for some time. He came out as a flashily dressed "lady" and just as some of the male members of the audience had decided "she" was becoming rather familiar with them, Clayton pulled off his wig.

Mr. Power sang several selections.

Walter Thwing, of Worcester, a tiny chap with a good voice and professional stage presence, entertained with a song and dance number. Mr. Gerald gave another impersonation.

The guests included Cyrus Barnes, general salesmanager, A. J. Harty, construction superintendent of Boston, A. M. Slattery of Boston, W. H. Keyes of this city, Edward W. Rogers, and P. J. Burns.

Mead-Morrison Electric Car Puller

The Mead-Morrison Manufacturing Company, East Boston, Mass., recently issued a folder entitled "Five Men or One Man," which refers to their Electric Car Puller. This apparatus consists of a vertical winch driven through a combination of worm and spur gearing by an electric motor. It is designed for handling cars in the yards around the plant, and will move the heaviest car with the aid of only one man. Several illustrations showing the "puller" handling coal cars are shown. A copy of this folder will be sent on request.

Laying Eight-Inch Main

Manchester, N. H.—The Manchester Gas Company has a large force of men at work replacing the small mains on Hartford Road with large eight-inch mains. These eight-inch mains will run from the junction at Pine Street and Hartford Road to the Main Street gas line. The company expects that when this job is completed, it will furnish the town with better gas pressure, especially those customers at the north end of the town.

Gas Company Uses Golden Rule

"The golden rule in business action not only is morally right, but it is the best business policy," declared Charles K. Green, vice-president of the Kansas City Gas Company.

"In the business of supplying gas to 66,000 consumers we are bound to have differences," he added. "But we tell our employees in case of differences of opinion always to give the consumer the benefit of the doubt.

"We have adopted, in the last year, the policy of trying to treat our patrons just as the corner druggist does his patrons.

"We want them to feel that we are trying to give them service and courteous treatment at all times.

"Most business men have come to the realization that the golden rule, which in the last analysis is simply fair, honest dealings, is indispensable. It makes for that great asset in a business—goodwill.

"There are more than 300,000 Kansas Cityans who depend upon us for gas service. It is our aim to earn their good-will.

"We are more than willing to investigate complaints and rectify errors. The consumer must be treated with all due courtesy at the hands of our employees and it is assumed that our patron is right in his belief until circumstances are investigated and facts established.

"Consumers are urged to get the utmost out of their gas money. They are urged to practise thrift in the use of gas. In our display rooms, a department is maintained the purpose of which is to instruct our patrons in the correct application of gas. Demonstrators are in constant attendance to explain the difference between proper and wasteful adiustment of burners, to point out the difference between efficient appliances and wasteful appliances. Satisfied consumers are worth more to us than any revenue derived from gas which is wasted."

Gas Company Seeks Injunction

Houston, Texas.—The Houston Gas & Fuel Company has filed suit seeking to restrain the use of gas by a family in an apartment house here. The company said it could not cut off the gas without affecting other consumers and seeks to prevent this family from using it.

Natural Gas Rates Raised

Cheyenne, Wyo.—Following the Public Service Commission hearing on the Cowley Gas Company's application for an increase of 20 cents per thousand cubic feet of gas it was decided to permit 12 cents piled on top of the old rate of 25 cents and thus make a new mark of 37 cents. Cowley gets its gas from the natural wells of the Midland Carbon Company one mile distant from the city.

U. G. I. Contracting Company Busy

Mark Twain once remarked anent his reported death, "The report is greatly exaggerated." This holds good regarding those who hold pessimistic views of business conditions throughout the country. As an illustration of business activity, the U. G. I. Contracting Company of Philadelphia reports that its field force is occupied with a large amount of erection work, and this condition promises to continue for some time.

Wants Higher Rates

Patchogue, N. Y.—The Long Island Lighting Company has applied to the Public Service Commission for an investigation and the fixing of an increased rate for gas in Babylon, Brightwaters, Amityville, Farmingdale, and the towns of Islip, Babylon, Oyster Bay and Huntington. The company increased its rate in November, 1919, from $1.50 to $1.75 a thousand feet and the complaint of Babylon town that this rate exceeded the franchise stipulation was thrown out, the court holding that the rate was reasonable.

Statement of Portland Gas & Coke Company

The delayed report of the Portland Gas & Coke Company for the calendar year 1920 has been issued to shareholders. It shows in comparison with 1919 an increase of 19 per cent in gross earnings, 27 per cent greater operating expense, 10 per cent more net earnings and 19 per cent increase in balance at the close of the year.

Following is the summary of the annual report:

	1920	1919
Gross earnings	$2,613,323	$2,185,366
Operating expenses	1,569,446	1,237,910
Net earnings	$1,043,877	$ 947,456
Balance after deducting fixed charges	675,292	595,882

Death of Forest J. Nason

Haverhill, Mass.—Forest J. Nason, superintendent of the Woonsocket, R. I., Gas Company, died in the Massachusetts General Hospital after two weeks' illness. He was born in this city, Jan. 9, 1891. He is survived by a widow and daughter, father and mother and one brother, Fred W. Nason, of Waterville, Me. The funeral was in this city Friday, April 1; burial in Elmwood Cemetery.

To Reduce Rate

Salem, Mass.—Announcement has been made by the Salem Gas Light Company that a reduction will be made in the price of gas by July 1. Several weeks ago the city council adopted an order requesting Mayor Sullivan to petition the State Public Utilities Board to order a reduction in this city and Peabody. Several hearings and conferences followed, with the result that the gas light company has assured the city council that as soon as existing contracts for coal and oil expire, reduction will be made.

S. B. Thompson Assumes New Duties

Detroit, Mich.—S. B. Thompson has severed his connection with the Detroit City Gas Company to assume the management of the Stroudsburg Citizens' Gas Company, at Stroudsburg, Pa.

Pacific Coast Gas Association Meeting

The Pacific Coast Gas Association has settled upon Del Monte, Cal., as a meeting place for this year. The convention will be held Sept. 20 to 23 inclusive. This year's officers are W. M. Kapus, president; Henry Bostwick, vice-president, and W. M. Henderson, secretary-treasurer.

$15,000,000 New Gas Bonds

New York, N. Y.—The Public Service Commission has approved an issue of $15,000,000 of 10 per cent debentures by the Consolidated Gas Company. The bonds are to be sold at par, redeemable in two years. The proceeds are to replace capital used for the acquisition of securities of subsidiary concerns.

Haverhill Company Granted Increase

Haverhill, Mass.—An increase of 15 cents per thousand cubic feet of gas sold to Haverhill, Groveland and Merrimac customers by the Haverhill Gas Light Company, has been allowed by the Department of Public Utilities, in an order issued March 18. The new rates, which take effect immediately, are $1.30 in Haverhill and $1.55 in Groveland and Merrimac.

In justification for its decision, in the face of falling prices the department in its order says: "While there is reason to believe that a recession in the abnormal costs of the past year has set in, it will probably be a number of months and perhaps longer before conditions are again sufficiently settled to warrant anything like a final conclusion as to a just and reasonable price. Meantime the public interest demands such readjustment in price as to ensure the unimpaired maintenance of the company's investment and service. If experience proves these rates to be unfair either to the company or to its customers, this decision should be reconsidered."

The order is issued after a hearing upon the petition of the company to the department to fix and determine just and reasonable prices for gas hereafter sold in the city of Haverhill and towns of Groveland and Merrimac. The previous revision in rates was made on Aug. 11, 1920, when the rates were made $1.15 in Haverhill and $1.40 in Groveland and Merrimac.

In its statement accompanying the order, the department says: "The reason for the action taken in August was that the increases previously approved had proved inadequate to meet the increased operating expenses experienced during and since the war and due to causes beyond the company's control. But no consideration was then given to the extraordinary market prices of oil, coal and coke prevailing throughout a considerable part of 1920, for the reason that, owing to existing contracts expiring the first of the present year, the company had been fortunate in escaping these excessive costs. The commission said:

"If these contracts are fulfilled the company's operating expenses for the coming six months are not likely to show any substantial increase. What may then occur it seems unnecessary to attempt to forecast.

"It appeared at the hearing that the contracts in question have expired, and estimating expenses on prices for materials and wages which the company must now pay and on the same output as last year, the cost of making gas during the present year will exceed by approximately $63,800 the cost of the past year, or an increase of over 15 cents a thousand cubic feet. On this showing at the present rates the company will earn not over $24,000 for depreciation and dividends. The company contends that it is entitled to a revenue adequate not only to meet its operating expenses and to provide properly for depreciation and return, but also to make good deficits already incurred and to assure a sufficient margin of net earnings to enable it to finance needed enlargements in the capacity of its work; concretely, that the selling price in Haverhill should be $1.52 and in Merrimac and Groveland $1.77 net a thousand cubic feet.

"A similar contention was made and considered in connection with the last increase in price. The commission did not then and does not now deem it necessary to concede the full extent of the company's claim. But consideration should justly be given to the fact that the company has not received during the past three years rates which allowed an adequate provision for depreciation and a fair return upon the property actively and necessarily employed for the public convenience. While there is reason to believe that a recession in the abnormal costs of the past year has set in, it will probably be a number of months and perhaps longer before conditions are again sufficiently settled to warrant anything like a final conclusion as to a just and reasonable price. Meantime the public interest demands such readjustment in price as to ensure the unimpaired maintenance of the company's investment and service.

"In view of all the circumstances the commission is of the opinion that a maximum net selling price of $1.30 in Haverhill and $1.55 in Merrimac and Groveland is just and reasonable. But if experience proves these to be unfair either to the company or to its customers, this decision should be reconsidered.

"It is therefore ordered, that said former order of the commission is revised, and from and after the date hereof said company is authorized to charge for gas sold and delivered in Haverhill not exceeding one dollar and thirty cents ($1.30) net a thousand cubic feet, and for gas sold and delivered in Merrimac and Groveland not exceeding one dollar and fifty-five cents ($1.55) net a thousand cubic feet."

Will Increase Plant Capacity

Washington, N. C.—Officials of the Washington Gas Company have announced that extensive improvements, involving the expenditure of from $35,000 to $40,000 are to be made by the local company during the next few months.

This amount will be expended in improving the plant and enlarging its capacity. Various gas mains in the city will also be extended and new pipe lines and mains will be put in on some of those streets along which no lines run at present.

Mr. Harney, of Scranton Trust Company, and Mr. Blackwood, engineer, also of Scranton, discussed with local officials of the gas company the nature of the improvements to be made.

The work will be started immediately so as to have the mains put in on those streets which are to be paved.

Presented with Gold Watch

Beverly, Mass.—Charles R. Prichard, former treasurer of the Beverly Gas & Electric Company, who on April 1 took up his new duties as vice-president and general manager of the Lowell Gas Company, is wearing a handsome new gold watch. It is a gift from the employees of the Beverly Company, a little token of the esteem in which he is held by every one connected with the company. The watch is a Waltham from H. P. Brett & Co., and is said to be one of the finest worn in Beverly. Inside the case is the legend showing the watch as a gift from the employees to the popular treasurer.

Seeks to Erect Holder

Portland, Ore.—The city council referred the request of the Portland Gas & Coke Company for permission to erect a gas holder of a capacity of 5,000 cu. ft. of gas or more, on a block bounded by East Ninth, Milwaukie and Clinton Streets, to City Commissioner Barbur for investigation. The city council will view the proposed site before acting upon the subject. One remonstrance was offered to the council while L. L. Levings, representing the gas company, urged speedy action, contending the gas holder would not injure the property owners in any way.

Correspondence

AMERICAN GAS JOURNAL,
150 Nassau Street,
New York City.

Gentlemen:—In reference to the article on "Coal Versus Water Gas—Carbon Monoxide Causes Poisonous Action," appearing on page 250 of your March 19, 1921, issue, we beg to call your attention to the following which is a quotation from the Dec. 1, 1920, edition of Bureau of Standards' circular No. 32—*Standards for Gas Service* (page 26).

"Because of the fact that carbon monoxide is the only constituent which is poisonous in the amounts ordinarily present, there has been at times some effort made by municipal authorities to limit the amount of it in the gas. However, it is not practicable, and in fact generally undesirable, to place limits on the quantity of this constituent; as a result there are now practically no regulations in regard to its presence. Coal gas contains from 5 to 10 per cent of carbon monoxide, water gas 25 to 30 per cent; limiting the amount might, therefore, limit the percentage of water gas which could be made. It is apparent that such regulation as would prevent the operation of water gas plants would be very radical and in many cases impossible of enforcement. The fact that water gas is more toxic than coal gas is not a conclusive argument for restricting its use. Economic conditions must also be taken into account.

"A large proportion of the cases of death or illness caused by gas poisoning are suicidal, or are due to irresponsible conditions, such as drunkenness, or to gross ignorance; and in the majority of these cases the character of the gas would probably have only a small influence upon the seriousness of the result. Of the remaining deaths and cases of gas poisoning a considerable number are due, not to the illuminating gas itself, but to the carbon monoxide formed by combustion of the gas with insufficient supply of air, as in a faulty appliance or in an appliance improperly set or connected with insufficient or improper flues. It is certain that the protection of the public from danger will be found to lie rather along lines of regulation of appliance form and setting, and general education of gas users as to proper precautions, than in the limitation of the carbon monoxide content of the gas itself."

The Bureau of Standards has for years been making a careful study of safety in connection with the manufacture and utilization of gas, and we know of no higher authority on this subject.

Yours very truly,
ALFRED I. PHILLIPS,
For secretary-manager,
AMERICAN GAS ASSOCIATION.

Gas Company Robbed

Woonsocket, R. I.—Two men stole $2,110.46 in cash from the Blackstone Valley Gas & Electric Company, 3 Clinton Street, Woonsocket, shortly before 6 o'clock, March 20, after quietly entering the office through the basement and forcing Joseph Victory, the cashier, at the point of revolvers, to open a strong box containing bills and change to that amount. The bandits escaped after tying Victory's hands behind his back and leaving him, rapidly suffocating, in a small broom closet.

The stolen money represented Saturday's receipts in cash, which Mr. Victory was preparing to check up. The cashier was rescued 40 minutes later, when Herman J. Pettengill, salesmanager, entered the office and, attracted by his cries, kicked out the panels of the closet door and dragged the bound and exhausted man through the frame.

Police who were hurriedly summoned threw out a net in search for the two intruders, described as probably professional robbers, but as yet no trace of them had been found.

The Blackstone Valley Company's office in Woonsocket is just off Depot Square, where hundreds of persons pass hourly. Mr. Victory, who is 27, and who has been cashier for the past eight months, had gone to the office to clear up records relative to the receipt of payments of accounts on Saturday.

Holds Company Can Fix Own Rate

Brooklyn, N. Y.—In denying the application of Martin M. Duitz, of 1559 Fifty-third Street, for an injunction to restrain the Kings County Lighting Company from charging him $1.50 per thousand feet for gas, Justice Joseph Aspinall in the supreme court, March 29, held "There is no legal barrier which prevents the company from fixing a rate deemed by it to be reasonably remunerative."

Duitz brought the action before Justice Aspinall after the Kings County Lighting Company in October last had announced it would increase its rates for gas from 95 cents a thousand to $1.50 per thousand cubic feet.

After commenting on the findings of the United States court in Manhattan last May, that the 80-cent rate was confiscatory and therefore unconstitutional, Justice Aspinall wrote:

"There is no valid rate established by statute, or by the Public Service Commission. Such being the situation I am aware of no legal barrier which prevented the company from fixing a rate deemed by it to be reasonably remunerative.

"The temporary failure in a given instance of the legislative plan for the regulation of a public service corporation does not leave such corporation helpless and divested of every right and power ordinarily incident to private ownership. Rather are they reclothed with the powers necessary to effectuate their corporate purposes and are free from the restrictions of a legislative plan that for the moment failed.

"In such a situation and until a valid rate is established pursuant to law, the defendant may determine its own rate. Either this or a chaotic condition results, whereby each individual consumer becomes a law unto himself to fix a rate beyond which he will not pay."

This decision for the time being allows the company to fix its own rate. The consumers of the Kings County Lighting Company have been paying the increase. Duitz will now have to pay to the company the difference between the old rate of 95 cents and the rate of $1.50, unless the decision is reversed.

Faces Loss of Nearly Million

The hearing on the application of the Los Angeles Gas & Electric Corporation for permission to increase its rates was adjourned recently by the State Railroad Commission and will be resumed on April 29. The gas company has introduced its evidence and during the recess the cities are expected to file their exhibits. The municipalities are expected to file by April 15, two weeks before the hearing is resumed.

At the hearing officials of the gas company submitted figures which indicate the company will run nearly $1,000,000 behind during the coming year unless the rates are raised.

Assistant City Attorney Roscoe Hess represented Pasadena at the hearings and is about to begin work on the evidence the city will offer in an effort to prevent the rate increase when the hearing is resumed.